TECHNICAL FISHERY REPORT 94-01

Alaska Department of Fish and Game
Commercial Fisheries Management
and Development Division
P.O. Box 25526
Juneau, Alaska 99802-5526

February 1994

Alaska Peninsula and Aleutian Islands Management Areas

Commercial Salmon Catch and Escapement Statistics, 1991

by

Robert L. Murphy

The Technical Fishery Report Series was established in 1987, replacing the Technical Data Report Series. The scope of this new series has been broadened to include reports that may contain data analysis, although data oriented reports lacking substantial analysis will continue to be included. The new series maintains an emphasis on timely reporting of recently gathered information, and this may sometimes require use of data subject to minor future adjustments. Reports published in this series are generally interim, annual, or iterative rather than final reports summarizing a completed study or project. They are technically oriented and intended for use primarily by fishery professionals and technically oriented fishing industry representatives. Publications in this series have received several editorial reviews and at least one *blind* peer review refereed by the division's editor and have been determined to be consistent with the division's publication policies and standards.

ALASKA PENINSULA AND ALEUTIAN ISLANDS MANAGEMENT AREAS

COMMERCIAL SALMON CATCH AND ESCAPEMENT STATISTICS, 1991

By

Robert L. Murphy

Technical Fishery Report 94-01

Alaska Department of Fish and Game
Commercial Fisheries Management
and Development Division
Juneau, Alaska

February 1994

AUTHOR

Robert L. Murphy is the Alaska Peninsula and Aleutian Islands Management Areas Research Biologist for Region IV, Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 211 Mission Road, Kodiak, AK 99615.

ACKNOWLEDGMENTS

Special thanks to ADF&G employees Tracy McKinion, Sam Nelson, Meesha Mangiaracina, Mark Weinberger, Gregory Gregg, and George Malone for their efforts in collecting catch sample data from Port Moller and King Cove. Judy Brandt, Tim Clark, Dan Thomas, Andy deValpine, Brian Westgate, Steve Krueger, Matt Ford, and Justin Freeman assisted in the collection of escapement samples. The Alaska Peninsula and Aleutian Islands Management Areas staff, Arnie Shaul, Jim McCullough, Bob Berceli, and Mark Stopha provided portions of the catch and escapement data used in this report. Hal Terry and Dave Henley provided aircraft support. Peter Pan Seafoods Inc. personnel at Port Moller and King Cove were extremely helpful in all phases of the project. Patti Roche opscanned, edited, and produced database files. Thanks also to Bruce Barrett for providing supervisory support and editorial assistance, and to Lucinda Neel for administrative and clerical support.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

The 1991 Alaska Peninsula and Aleutian Islands Management Areas commercial salmon catch was 17,611,000 salmon, consisting of 17,400 chinook *Oncorhynchus tshawytscha*, 4,699,000 sockeye *O. nerka*, 10,599,000 pink *O. gorbuscha*, 1,764,000 chum *O. keta*, and 530,000 coho *O. kisutch* salmon. The catch was above the 1981–1990 average of 12,357,541 salmon. The South Peninsula area accounted for 84% of the catch, the North Peninsula area 16%, and Aleutian Islands area < 1%. Most of the pink, chum, and coho salmon catch was in the South Peninsula and most of the chinook and sockeye salmon harvest in the North Peninsula.

The Alaska Peninsula and Aleutian Islands Management Areas 1991 escapement for streams monitored was an estimated 6,551,287 salmon, consisting of 17,126 chinook, 1,337,687 sockeye, 3,795,285 pink, 1,221,366 chum, and 179,823 coho salmon. Chinook salmon escapements were limited to the North Peninsula. Sockeye salmon escapements were largest on the North Peninsula (1,184,246), and pink salmon escapements occurred almost entirely on the South Peninsula (3,776,966). Chum salmon escapements were largest on the South Peninsula (726,276), coho salmon escapements on the North Peninsula (177,120).

Age composition data were not taken for chinook salmon in the South Peninsula area. The North Peninsula chinook catch was estimated to be 24% age 1.3 and 38% age 1.4. The South Peninsula post-June sockeye catch was an estimated 70% age 1.3, 11% age 2.2, and 11% age 2.3, whereas the North Peninsula catch was an estimated 38% age 1.3, 23% age 2.2, and 25% age 2.3. The South Peninsula post-June chum catch age composition was 47% age 0.3 and 48% age 0.4; the North Peninsula chum catch was estimated to be 50% age 0.3 and 48% age 0.4. An estimated 14% of the coho catch from the North Peninsula was age 1.1, 54% age 2.1, and 32% age 3.1. The Orzinski Lake sockeye escapement was estimated to be 39% age 1.3, 29% age 1.2, and 27% age 2.2. The Nelson River sockeye escapement was an estimated 54% age 2.2 and 15% age 2.3, and the Bear River sockeye escapement 61% age 2.2 and 18% age 1.3. The Ilnik River sockeye escapement was an estimated 91% age 1.3.

KEY WORDS: Alaska Peninsula, Aleutian Islands, Pacific salmon, catch, escapement, age, length, sex

INTRODUCTION

Alaska Peninsula and Aleutian Islands Management Area for commercial salmon harvesting are divided into three areas: (1) the South Peninsula, consisting of the Pacific Ocean coastal waters from Kupreanof Point west to Scotch Cap and consisting of the Southeastern, South Central, Southwestern, and Unimak Districts; (2) the North Peninsula, consisting of Bering Sea coastal waters from Cape Menshikof west to Cape Sarichef and containing the Northwestern and Northern Districts, and (3) the Aleutian Islands, containing the Pacific Ocean and Bering Sea coastal waters west of Unimak Pass to the international dateline and consisting of the Akutan, Unalaska, Umnak, and Adak Districts (Figures 1,2). The North and South Peninsula are within the Alaska Peninsula Management Area, and the Aleutian Islands are a within the same management area.

The Aleutian Islands Management Area has 335 known salmon streams, of which 45 contain sockeye salmon, 319 contain pink salmon, and 11 chum salmon (Murphy 1992). The Alaska Peninsula Management Area has about 247 salmon streams; pink salmon and chum salmon are found in about one-half of these systems, coho salmon are found in one-third and sockeye in one-fifth of the streams (Murphy 1992). The most productive salmon streams are in the Alaska Peninsula Management Area, where most of the commercial salmon fishing occurs.

Five salmon species are commercially harvested in the two management areas: chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho salmon *O. kisutch*. Annual 1981–1990 salmon harvests have ranged from 6.04 million in 1987 to 21.07 million in 1984 and averaged 12.36 million salmon (Table 1). Commercial salmon fishing gear in the North and South Peninsula includes purse seines, hand purse seines, drift gillnets, and set gillnets; in the Aleutian Islands gear is limited to purse seines (Table 2). The catch by gear type within a district varies depending on other fishing opportunities, weather, and gear regulation. Sockeye and pink salmon are of primary economic importance in South Peninsula and Aleutian Islands fisheries, whereas sockeye and chum salmon are the most valuable in the North Peninsula.

The South Peninsula is composed of four districts and 43 statistical areas; the North Peninsula contains two districts and 21 statistical areas; the Aleutian Islands consists of four districts and 40 statistical areas (Table 3). Commercial salmon fishing usually begins during the first week of June in South Peninsula waters , during the last week of June in the Aleutian Islands, and during the last week of May on the North Peninsula. During June, the majority of drift net effort occurs in the South Unimak fishery, while purse seining occurs in the Shumagin Islands Section and South Unimak fisheries. The major set gillnet effort occurs in the Southeast Mainland District, Shumagin Islands Section, and Nelson Lagoon Section. After June, the majority of the purse seine effort is in South Peninsula waters for pink and chum salmon. Drift gillnet effort moves to the North Peninsula after June, mainly between Harbor Point and Strogonof Point. Set gillnet gear continues as the predominant gear in the Southeast Mainland District, Shumagin Islands, and Nelson Lagoon Sections. In late July, purse seining occasionally occurs in the Aleutian Islands when local salmon runs are sufficiently large to warrant a fishery.

Bristol Bay fishermen can fish in the Inner Port Heiden and Cinder River Sections of the Northern District in May, June, August, and September and in the Ilnik Lagoon Section after July. The Board of Fish and

Game created the overlap area in 1960 to allow Port Heiden residents the opportunity to commercially fish in traditional areas. Historically, Port Heiden commercial fishermen targeted chinook and coho salmon in the North Peninsula and sockeye salmon in the Bristol Bay Management Area. Bristol Bay drift gillnet fishermen, excluding those from Port Heiden, first fished the Ilnik and Outer Port Heiden Section in 1986 (Shaul et al. 1990).

In the Alaska Peninsula and Aleutian Islands Management Areas, most salmon fisheries are directed on local stocks. Five major interception fisheries occur in the Alaska Peninsula Management Area. The first is the June South Unimak and Shumagin Islands Section fisheries (ADF&G 1990), which target Bristol Bay sockeye salmon. The allocation for South Unimak and Shumagin Islands is 8.3% of the most current projected inshore sockeye salmon harvest for Bristol Bay. A cap of 600,000 chum salmon was instituted by the Board of Fisheries on the June fishery in the combined South Unimak and Shumagin Islands. If the cap is obtained the fishery is closed. During June and July, a second interception fishery occurs in the Southeast Mainland District (Southwest and East Stepovak Sections, Stepovak Flats, and Beaver Bay and Balboa Bay Sections). This fishery targets on Chignik River sockeye salmon. The Southeast Mainland District fishery through 25 July is allotted 6.0% of the total Chignik sockeye catch, which is determined from catches in the Cape Igvak Section of the Kodiak Management Area, the Chignik Management Area, and the Southeast Mainland District. A third sockeye and coho interception fishery has developed in selected areas of the Shumagin Islands Section during July and August. Stocks contributing to this fishery are probably Chignik, Kodiak, Cook Inlet, Bristol Bay, and Alaska Peninsula salmon (McCullough 1990). A fourth interception fishery on sockeye and coho salmon by the drift gillnetters occurs in the Ikatan Bay Section of the Southwestern and Unimak Districts and occurs from late July until mid-August. The fifth interception fishery occurs from Harbor Point to Strogonof Point reach of the North Peninsula during the first few weeks in July. Scale pattern analysis determined that Bristol Bay sockeye salmon can compose a large portion of the catch within this reach, but the number of fish harvested appears to change depending on the size of the Bristol Bay run and annual migration pattern (Geiger 1989; Swanton and Murphy 1992).

This report is part of an ongoing series of annual reports documenting the number, age, sex, and length composition of salmon catches and escapements in the Alaska Peninsula and Aleutian Islands Management Areas. The data provides a base for developing brood tables, forecasting runs, evaluating escapement objectives, and identifying future research and management considerations. This report documents resource inventory baseline data, and therefore, interpretation and discussion of the data are limited.

METHODS

Commercial catch data were compiled by the Commercial Fisheries Management and Development Division of the Alaska Department of Fish and Game (ADF&G). The data were based on computer tabulations originating from individual sale receipts (*fish tickets*) given to fishermen at the time of delivery. Fish tickets and computer-generated summaries were edited by ADF&G Alaska Peninsula staff

for errors and omissions. Most of the data in this report were assigned to a statistical week which begins at 0000 hours each Sunday and ends at 2400 hours the following Saturday. Statistical weeks were numbered sequentially beginning with the week encompassing the first Sunday in January (Table 4).

Salmon escapements in the Alaska Peninsula and Aleutian Islands Management Areas were monitored by aerial and foot surveys and at three weirs. The Orzinski Lake weir was operated from 14 June to 19 July. The Bear River weir, located about 24 km upstream of the river mouth, was operated from 31 May to 20 August. The Nelson River weir, located about 56 km above the entrance to Nelson Lagoon, wasoperated from 8 June to 1 August, and the Ilnik River weir was operated from 4 June to 11 July when the weir was washed out.

Escapements to other spawning streams were monitored by aerial and foot surveys. Pink and chum salmon total escapements were calculated for surveyed streams using aerial counts and an assumed average stream life of 15 d for each species, except for Swanson Lagoon chum salmon and most Southeast Mainland District pink salmon which have an assumed average stream life of 7 d (Cousens et al. 1982; Johnson and Barrett 1988; McCullough 1989). Chinook escapement for surveyed streams was calculated by multiplying the peak escapement count by 1.92 (Neilson and Geen 1981; Barrett et al. 1985). When weirs were not present, sockeye escapements for shallow and clearwater streams were calculated by multiplying the peak escapement count by 1.25 (McCullough 1989) and by 2.0 for all other systems (Barrett 1972; Barrett et al. 1985). Total coho escapements for surveyed streams were determined from data in Minard (1986) by multiplying the peak count by 2.4. No attempt was made to estimate escapement into systems not monitored by aerial surveys. Escapement estimates of sockeye, pink, chum, and coho salmon in Alaska Peninsula streams were considered accurate; estimates in the Aleutian Islands were considered minimal values.

Age data from scales were collected from all salmon that were sampled. Age compositions were computed weekly for catch and escapement samples. Total catch by age within a week was determined by multiplying the proportion of a particular age by the catch during the specific week. Sample sizes of 440 chum and 300 coho and chinook salmon/week/area were sampled. Sockeye salmon were sampled at 600 week/area. Standard errors were computed for each age from escapement samples by taking the square root of the variance, without the finite population correction factor (Cochran 1977). Age compositions were computed by week for each area sampled. No standard errors or variances were calculated across weeks. Catch by age across weeks was obtained by summation.

Sockeye escapement sampling was conducted weekly at Orzinski, Nelson, Bear, and Ilnik Rivers. Weekly samples of 240 adult sockeye salmon were obtained as the fish became available. This sample size was chosen to provide 90% simultaneous confidence levels for age proportions of the population within $\pm$ 7% of the true age proportions (Thompson 1987).

Catches from the major fishing areas were sampled weekly throughout the season; catches from minor fishing areas were sampled less frequently. Catch sampling occurred at King Cove, where the majority of the South Peninsula catch was landed, from 1 July to 20 August and on the North Peninsula at Port Moller from 1 June to 1 September.

Tender operators purchased salmon from all gear types operating within their immediate area. This precluded compilation of separate age, sex, and size composition estimates by gear type, except when the catch was by a single gear type. Although salmon were purchased by species, a thorough mixing of salmon by quality and species aboard the tender probably occurred during subsequent purchases, transport, and off-loading. Catch sampling occurred before sorting at the cannery, and there was no preselection of salmon other than from delivery areas; each sample was assumed to be representative of the harvest from a sample area. Salmon were assumed to be randomly sampled. The harvest area for each tender was determined through vessel operator interviews and fish ticket information.

The commercial salmon catch in the South Peninsula was harvested primarily by seine gear. In the North Peninsula, chum salmon were harvested mostly by seine gear in Swanson Lagoon, Bechevin Bay, Izembek-Moffet Bay, and Herendeen Bay. Seine-caught salmon in terminal area fisheries have biological characteristics similar to the spawning population (Roos 1957). Catch samples from these areas were used to describe the escapement.

Age was determined by examining scales (Bilton and Ricker 1965; Mosher 1968). Scales were removed from the preferred area located on the left side of the salmon two rows above the lateral line in an area transected by the posterior insertion of the dorsal fin to the anterior insertion of the anal fin (INPFC 1963). One scale was taken from each sockeye and chum salmon, three scales from chinook salmon, and four scales from coho salmon. Additional scales were taken from chinook and coho salmon to minimize chances of sampling a regenerated scale; these species have higher scale regeneration rates than other salmon (McCullough 1990). For coho salmon, when one scale is collected there is a 50% chance of regeneration, when two scales are collected the odds of both scales being regenerated are only 25% (McCullough 1990). A microfiche reader was used to read an acetate impression of the scale (Clutter and Whitesel 1956). Ages were recorded in the European notation: the first digit represents the number of winters the salmon spent in freshwater and the second digit the number of winters the salmon spent in the ocean (Mosher 1968). The total age is the sum of these numbers plus one to account for the incubation time.

Length and sex information were obtained from all escapement samples. Length was recorded to the nearest millimeter and measured from mid-eye to fork-of-tail. Sex was determined by external morphological examination of kype development, belly shape, trunk depth, jaw shape, and maturation of gonads.

RESULTS

In 1991, 126 purse seine, 162 drift gillnet, and 111 set gillnet limited entry permits were fished within the Alaska Peninsula and Aleutian Islands Management Areas (Area M). This was an increase of five purse seine permits, three set gillnet permits, and one drift gillnet permit from 1990. In 1991, 69 drift gillnet

and 12 set gillnet Area T permits were fished in the Alaska Peninsula Management Area. This was an increase of six drift gillnet permits and a decrease of three set gillnet permits from 1990.

The total 1991 commercial salmon catch for the Alaska Peninsula and Aleutian Islands Management Areas was 17,400 chinook (< 1%), 4,699,000 sockeye (27%), 10,599,000 pink (60%), 1,764,000 chum (10%), and 530,000 coho salmon (3%; Table 1). The South Peninsula accounted for about 84% of the harvest, the Aleutian Islands < 1%, and the North Peninsula 16% of the harvest (Table 5). The South Peninsula catch was harvested primarily by purse seine gear (74%), followed by drift gillnet gear (18%), and set gillnet gear (8%). The North Peninsula catch was harvested primarily by drift gillnet gear (80%), followed by set gillnet gear (12%), and purse seine gear (8%). In the Aleutian Islands Area the entire catch was taken with purse seine gear.

In the Alaska Peninsula and Aleutian Islands Management Areas purse seine gear harvested 12,957,881 salmon, drift gillnet gear 3,182,333, and set gillnet gear 1,469,258 (Table 5). Most of the seine (98%) and set gillnet (78%) catch occurred in South Peninsula waters, whereas most of the drift gillnet (71%) catch occurred in the North Peninsula.

Fishing Effort

Fishing effort during the last few years has stabilized in most areas. However, since 1985 set gillnet effort has increased during the post-June fishery in the Shumagin Islands Section (Shaul 1989; McCullough 1990). Before 1985, an average of three to eight set gillnet permit holders fished the area; in 1985 and 1986, 30 to 40 set gillnet permit holders fished this area; and in 1987 effort increased to 53. Recent set gillnet effort has increased to about 60 permits (McCullough 1990). The change in effort since 1985 resulted from restricted openings in the Southeast Mainland District, which subsequently shifted set gillnet effort to the Shumagin Islands Section.

The increased effort in the Shumagin Islands Section post-June fishery from 1979 to 1989 produced high catches of sockeye, pink, and coho salmon (Table 6). The 1991 post-June chinook catch of 1,396 was a 56% decrease from the 1979–90 average of 3,193. The sockeye catch of 212,091 was almost equal to the 1979–90 average (Table 6). The 1991 pink catch of 2,140,838 was 24% above the 1979–90 average, the chum catch of 211,667 decreased 18%, and the coho harvest of 142,846 decreased 30% (Table 6).

The 1991 South Unimak post-June catch of 174,805 salmon was below the 1979–90 average of 290,028 for all species except coho salmon (Table 7). The chinook harvest of only 150 salmon was below the 1979–90 average of 557, while the sockeye harvest of 29,774 was about one-half the 1979–90 average. Pink and chum salmon catches were 65% and 60% lower, respectively (Table 7). Coho catches nearly doubled the 1979–90 average.

Effort also changed in the North Peninsula/Bristol Bay overlap fishery located west of Port Heiden. Prior to 1986, Bristol Bay drift gillnet permit holders did not fish west of Port Heiden. In 1991, 69 Bristol Bay

drift gillnet permit holders fished in North Peninsula waters, most of the effort occurring in the Cinder River Section.

In 1983 effort and catches increased in the Northern District from Cape Seniavin to Strogonof Point. Drift gillnet fishermen fished more to the east in the Northern District because of the availability of tender operators in this area and their use of larger fishing boats. In 1983, catches in the Cape Seniavin to Strogonof Point area began to increase.

Traditionally, fishing in the Northern District had been limited to the area west of Cape Seniavin through 24 June, to the area west of Unangashak Bluffs in the Ilnik Section from 25 June through 4 July, and to the area west of Strogonof Point after 14 July (ADF&G 1990; Figure 3). Local sockeye stocks taken in the Harbor Point to Strogonof Point fisheries are likely from the Meshik, Cinder, Ilnik, Sandy, Bear, and Nelson Rivers systems along with smaller systems scattered throughout the area. During 1974 to 1983, sockeye catches in the Cape Seniavin to Strogonof Point fisheries averaged 19% of the total Harbor Point to Strogonof Point catch. Between 1984 and 1991, the catch in the Harbor Point to Cape Seniavin reach averaged 43%; 57% were harvested in the Cape Seniavin to Strogonof Point reach (Table 8). Most (55%) of the 1991 harvest occurred from Harbor Point to Cape Seniavin area (Figure 4).

In the Alaska Peninsula and Aleutian Islands Management Areas, most salmon used for subsistence and personal use are believed to be harvested during commercial fishing activities. A total of 292 subsistence permits were issued in 1991; 61% or 178 of them were returned. The amount of salmon retained from the commercial catch for personal use is unknown. The estimated total subsistence harvest was 24,110, which consisted of 456 chinook, 11,292 sockeye, 2,895 pink, 3,417 chum, and 6,079 coho salmon (Table 9).

Salmon escapement for the Alaska Peninsula and Aleutian Islands Management Areas, for the systems monitored by weirs, aerial, and foot surveys was estimated at 6,551,287, which included 17,126 chinook, 1,337,687 sockeye, 3,795,285 pink, 1,221,366 chum, and 179,823 coho salmon (Table 10). Escapement data for the Aleutian Islands Management Area was limited; the escapement was estimated at 298 sockeye, 16,786 pink, and 52 chum salmon (Table 10). Coho salmon escapement estimates are incomplete for the South Peninsula and Aleutian Islands.

South Peninsula

The 1991 projected guideline sockeye harvest for the June South Unimak and Shumagin Islands Section fisheries was 1,920,000 fish, and the chum catch was limited to a maximum of 600,000. The Shumagin Islands Section and the South Unimak fisheries were usually opened concurrently. The South Unimak fishery was open for 8 d and the Shumagin Islands for 5 d. The June South Unimak and Shumagin Islands Section catch of 2,943,000 salmon included 4,000 chinook, 1,549,000 sockeye, 619,000 pink, and 771,000 chum salmon (Tables 11, 12). The peak in the daily sockeye catch occurred on 20 June at 277,000 fish, whereas the chum peak was on 24 June at 188,000 (Shaul et al. 1992). The 1991 June Shumagin Islands sockeye and chum salmon harvest of 333,272 and 102,602 was below the 1980–90

sockeye salmon average of 332,412 and above the 1980–90 chum salmon average of 91,917 (Figure 5). The 1991 June South Unimak fishery harvested 1,211,731 sockeye and 668,742 chum salmon. The sockeye harvest was similar to the 1980–90 average of 1,200,000, and the 1991 chum harvest of 668,742 was not only above the 1980–90 average of 430,000, but also exceeded the chum salmon cap of 600,000 (Figure 6).

The 1991 catch in the Southeast Mainland District fishery (Stepovak, Beaver, and Balboa Bays) was 1,063 chinook, 396,655 sockeye, 2,119,216 pink, 195,150 chum, and 50,102 coho salmon (Table 13). About 93% of the catch was landed after 25 July consisting of 833 chinook, 211,742 sockeye, 2,119,180 pink, 191,976 chum, and 50,101 coho salmon (Table 13).

The 1991 Shumagin Islands Section catch of 3,264,341 salmon included 2,803 chinook, 545,363 sockeye, 2,259,053 pink, 314,269 chum, and 142,853 coho salmon (Table 12). About 83% of the catch was landed post-June consisting of 1,396 chinook, 212,091 sockeye, 2,140,838 pink, 211,667 chum, and 142,847 coho salmon (Table 12).

The total 1991 South Peninsula salmon catch of approximately 14,791,000 included 7,914 chinook, 2,312,512 sockeye, 10,607,619 pink, 1,582,543 chum, and 317,054 coho salmon (Table 14). Peak catches occurred for chinook and sockeye salmon during week 25 (14–20 June), for pink salmon during week 32 (2–8 August), chum salmon during week 26 (21–27 June), and for coho salmon during week 30 (19–25 July; Table 14).

For surveyed streams, the estimated South Peninsula salmon escapement of 4,659,085 salmon included 153,143 sockeye, 3,776,966 pink, 726,276 chum, and 2,700 coho salmon (Table 10). The Southwestern District had the largest escapements of all South Peninsula districts for sockeye, chum, and coho salmon, while the South Central District had the largest pink salmon escapement (Table 10).

Chinook Salmon

A total of 7,914 chinook salmon were harvested in the South Peninsula in 1991 (Table 1); the catch was 62% below the 1981–90 average of 11,337 (Table 1). The Shumagin Islands Section, Ikatan Bay Section, and the Cape Lutke Section accounted for most of the 1991 harvest. The Shumagin Islands Section provided 40% of the total chinook harvest. The peak daily catch of 614 occurred during week 30 (19–25 July) in the Southeast Mainland District fishery (614; Table 13) and week 25 (14–20 June) in the Shumagin Islands (1,246; Table 12), Ikatan Bay (870; Table 15) and Cape Lutke Sections (2,734; Table 16). The peak catch for the entire South Peninsula occurred during week 25 (14–20 June; 3,661; Table 14). There are no documented chinook spawning streams on the South Peninsula.

Sockeye Salmon

The 1991 South Peninsula sockeye catch was 2,312,512, which was 11% higher than the 1981–90 average of 2,088,313 (Table 1). The majority of the salmon were caught in the Cape Lutke Section (736,839; Table 16), Shumagin Islands Section (560,397; Table 12), Ikatan Peninsula to Cape Lazaref reach (495,184; Table 15), and Southeast Mainland District (396,655; Table 5). The peak daily catch occurred during week 25 (14–20 June; 224,703; Table 12) in the Shumagin Islands and Cape Lutke Sections (410,682; Table 13). Peak catches in the Ikatan Bay to Cape Lazaref reach occurred during week 26 (21–27 June; 256,377; Table 15). The majority of sockeye salmon were caught by purse seine gear (79%) in the Southeast Mainland District, purse seines in the Shumagin Islands Section (87%), drift gillnets in the Ikatan Bay area (49%), and purse seines (70%) in the Cape Lutke Section (Table 5). Sockeye salmon harvested in post-June South Peninsula fisheries were an estimated 70% age 1.3, 11% age 2.2, and 11% age 2.3 (Table 17).

The June Shumagin Islands Section sockeye guideline harvest level was set at 347,000, and the actual harvest of 333,272 was slightly below the allocation. The post-June catch was 67% age 1.3 and 14% age 2.2 (Table 17).

The June South Unimak fishery (Ikatan Peninsula to Cape Lazaref and the Cape Lutke Section) sockeye guideline harvest level was 1,537,000 salmon; the actual harvest was 1,215,658. The post-June catch was 32,838 (Table 5).

The pre-July 26 sockeye catch in the Southeast Mainland District was 289,727 (Table 13). The peak sockeye harvest of 79,383 occurred during week 29 (14–20 July). The total harvest was estimated at 76% age 1.3 and 11% age 2.3 (Table 17).

The sockeye escapement into South Peninsula streams was 153,143 (Table 10). Most sockeye salmon spawned in Thinpoint Lagoon (40,600) and Orzinski Lake (40,000; Table 18). The sockeye escapement into Orzinski Lake was about 39% age 1.3, 29% age 1.2, 27% age 2.2 (Table 19). The male-to-female (m:f) ratio was 0.9:1; average length was 505 mm for males and 514 mm for females (Tables 20, 21).

Pavlof Bay's commercial sockeye catch of 36,053 was an estimated 70% age 1.3 (Table 17); age composition estimates of terminal fisheries are assumed to be the similar for the escapement (Roos 1957). The Urilia Bay age composition was estimated at 26% age 0.3 and 50% age 1.3 (Table 17). Harvest from the Thinpoint Section was estimated at 44% age 1.2 and 38% age 1.3 (Table 17).

Pink Salmon

The 1991 South Peninsula pink harvest of 10,615,800 occurred primarily in post-June fisheries, and most of the catch was taken from the Shumagin Islands Section and the Southeast Mainland District areas (Table 5). Peak catch occurred during week 32 (2–8 August; Table 14), when 641,234 salmon were harvested. The estimated escapement for the South Peninsula was 3,776,966 (Table 10). The largest

escapements (over 100,000 salmon) were in Squaw Harbor, Mino, East Mino, Settlement Point, Major Coal Bay, Middle, and Southern Creeks.

Chum Salmon

The 1991 South Peninsula chum catch of 587,400 was slightly below the 1981–90 average of 1,606,302 (Table 1). The majority were caught in the Southeast Mainland District fishery, the Shumagin Islands Section post-June fisheries, and the South Unimak June and post-June fisheries. Peak catches in the Southeast Mainland District fishery occurred during week 31 (26 July – 1 August; 68,356; Table 13), in the Shumagin Islands Section during week 25 (14 June – 20 July; 57,804; Table 12), and in the Cape Lutke Section during week 26 (21–27 June; 272,035; Table 16). Purse seiners caught the majority of chum salmon in all fisheries, except in the Ikatan Peninsula to Cape Lazaref fishery, where drift gillnet fishermen caught 62% of the catch (Table 15). The post-June South Peninsula chum catch was approximately 47% age 0.3 and 48% age 0.4 (Table 22).

A total of 328,985 chum salmon were caught in the Shumagin Islands Section during 1991 (Table 12). The June harvest was 102,602 and the post-June catch was 226,383. The estimated age composition of the post-June catch was 41% age 0.3 and 53% age 0.4 (Table 22).

The June South Unimak (Unimak District, Bechevin Bay Section of the Northwestern District, and Ikatan Bay Section of the Southwestern District) catch was 668,742 (Table 11). The post-June harvest of 37,309 was 51% age 0.3 and 47% age 0.4 (Table 22).

The chum catch in the Ikatan Peninsula to Cape Lazaref fishery was 244,019 salmon (Table 15). In the post-June fishery, the harvest was estimated at 52% age 0.3 and 46% age 0.4 (Table 22).

The chum harvest prior to 26 July in the Southeast Mainland District fishery was 12,109, and the peak catch occurred during week 29 (12–18 July; 5,775 salmon; Table 13). The post-25 July harvest of 183,041 chum salmon peaked during week 31 (26 July – 1 August) at 68,356 salmon (Table 13). The estimated age composition of the post-June catch was 45% age 0.3 and 52% age 0.4 (Table 22).

The majority of the remaining chum harvest in South Peninsula waters occurred in terminal purse seine fisheries. The majority of these salmon were harvested in Pavlof, Volcano, and Belkofski Bays(Table 5). The chum catch in the terminal fisheries at Canoe, Pavlof, Belkofski, and Morzhovoi Bays were sampled to determine the age composition of the run (Roos 1957). In Canoe Bay, the peak catch occurred during week 30 (19–25 July) and was composed of 28% age 0.3 and 63% age 0.4. The Pavlof Bay catch peaked during week 33 (9–15 August) and was 41% age 0.3 and 37% age 0.4 (Table 22). The Belkofski Bay catch peaked during week 33 (9–15 August), and the age composition was estimated at 45% age 0.3 and 50% age 0.4 (Table 22). The Morzhovoi Bay catch peaked during week 34 (16–22 August) and was estimated at 60% age 0.3 and 35% age 0.4 (Table 5).

The South Peninsula chum escapement was 726,276 salmon (Table 10). The largest escapements occurred in Canoe Bay River (120,303), Big River (37,500), Russell Creek (49,900), and Stepovak River (42,982; Shaul et al. 1992).

Coho Salmon

A total of 317,054 coho salmon were harvested in South Peninsula fisheries, a level 14% higher than the 1981–90 average harvest of 274,299 (Table 1). About 46% of the harvest was taken in the Shumagin Islands Section. The peak catch (114,410) occurred during week 30 (19–25 July; Table 12). Only limited aerial surveys were conducted for coho salmon and the estimated total escapement was 2,700 salmon (Table 10). Coho salmon were sampled in North Peninsula fisheries in 1991, but not in South Peninsula fisheries (Table 23).

Aleutian Islands Management Area

The Aleutian Islands total salmon catch in 1991 was 800 sockeye salmon (Table 1). The 1991 catch was only a small fraction of the 1981–90 average of five chinook, 11,523 sockeye, 457,764 pink, 11,248 chum, and 34 coho salmon (Table 1). The entire 1991 harvest occurred during week 29 (12–18 July; Table 24). Escapement monitoring in the Aleutians was limited. The estimated total escapement to those streams surveyed was 17,139 salmon, which consisted of 298 sockeye, 16,786 pink, and 52 chum (Table 10).

Catch and escapement samples were not collected in the Aleutian Islands Management Area.

North Peninsula

The total 1991 North Peninsula catch was 2,814,400 salmon which included 9,400 chinook, 2,392,100 sockeye, 4,200 pink, 191,200 chum, and 217,400 coho salmon (Table 1). About 80% of the harvest was taken with drift gillnets, 12% by set gillnets, and 8% by purse seine (Table 5). Seine gear accounted for most of the effort in terminal chum and pink salmon fisheries, as well as terminal sockeye fisheries in Urilia Bay, Izembek-Moffet Bay, and Swanson Lagoon. Terminal set gillnet fisheries for sockeye and coho salmon occurred in Cinder River, Port Heiden Bay, Ilnik Lagoon, Nelson Lagoon, Swanson Lagoon, and Urilia Bay.

The North Peninsula escapement of 1,875,063 salmon included 17,126 chinook, 1,184,246 sockeye, 1,533 pink, 495,038 chum and 177,120 coho salmon (Table 10).

Chinook Salmon

The 1991 North Peninsula chinook catch was 9,400 (Table 1). The harvest was 52% below the 1981–90 average of 19,045 (Table 1). The peak catch occurred during week 25 (14–20 June) when 3,094 were harvested (Table 25). The Nelson Lagoon Section accounted for 37% of the chinook catch (3,450;Table 26), 20% was from the Harbor Point to Cape Seniavin fishery (1,846; Table 27), and 33% was from the Inner Port Heiden Section (3,139; Table 5). The majority of the harvest in the Harbor Point to Cape Seniavin fishery (89%) and the Inner Port Heiden Section (90%) was from drift gillnets (Table 5).The Nelson Lagoon catch was about 21% age 1.2, 30% age 1.3, 33% age 1.4, and 15% age 1.5 (Table 28). The Harbor Point to Cape Seniavin reach age composition was 28% age 1.2, 13% age 1.3, 46% age 1.4, and 11% age 1.5 (Table 28). The entire North Peninsula catch was estimated at 23% age 1.2, 24% age 1.3, 38% age 1.4, and 13% age 1.5 (Table 28).

The estimated chinook escapement to the North Peninsula was about 17,126 (Table 10). The majority of the escapement (54%) was in Nelson River system. Davids River (2,496), Bluff Creek (1,056), and Meloy Creek (768) had substantial chinook escapements.

Sockeye Salmon

The North Peninsula catch of 2,291,183 sockeye salmon was 20% above the 1981–90 average of 1,904,495 (Table 1). The majority of the harvest (1,914,055) occurred in the Harbor Point to Strogonof Point area (Table 8). The Harbor Point to Cape Seniavin area accounted for 55% (1,049,200) of the total North Peninsula sockeye catch (Table 27), and the Cape Seniavin to Strogonof Point area accounted for 45% (864,855) of the North Peninsula sockeye catch (Table 29). The peak catch of 486,589 sockeye salmon for the North Peninsula occurred during week 29 (5–11 July; Table 25). The majority of the North Peninsula sockeye catch was taken with drift gillnet gear (84%), followed by set gillnet gear (10%), and purse seine gear (6%; Table 5). In the Inner Port Heiden Section, Ilnik Lagoon, Nelson Lagoon, Swanson Lagoon, and Urilia Bay Sections, set gillnet gear dominated the catch (Table 5). The entire North Peninsula catch was 38% age 1.3, 23% age 2.2, and 25% age 2.3 (Table 17).

The North Peninsula sockeye escapement was 1,184,246 (Table 10). Nelson River (256,323; Table 30) and Bear River (606,000; Table 31) supported 73% of the escapement. The usually moderate-sized systems at Ilnik River (135,000), Sandy Lake (94,000), and Whaleback Mountain Creek in Urilia Bay (75,500) all had exceptionally large runs in 1991 and accounted for 25% of the escapement.

The Nelson Lagoon system (Coastal and Hoodoo Lakes, and David, Caribou, and Sapsuk Rivers) sockeye escapement was 268,400. About 96% of the escapement (256,323) occurred in Nelson River. Peak escapement of 122,285 sockeye salmon into Nelson River occurred in week 28 (5–11 July; Table 32). The sockeye escapement in Nelson River was about 18% age 1.2, 10% age 1.3, 54% age 2.2, and 15% age 2.3 (Table 19). The m:f ratio was 1.3:1 (Table 32) and the average length was 508 mm for males and 475 mm for females (Table 33).

The 1991 Bear River sockeye escapement of 606,800 salmon (Table 31) peaked at 160,643 for week 28 (5–11 July; Table 34). The sockeye escapement was estimated at 18% age 1.2 and 61% age 2.2 (Table 19). In Bear River, an increase in the proportion of age-2.2 sockeye salmon accompanied by a decrease in age-2.3 fish occurred as the season progressed. The overall m:f ratio was 0.9:1, and the average length was 461 mm for males and 476 mm for females (Tables 34,35).

The sockeye escapement into the Ilnik Lagoon system, (Ocean and Ilnik Rivers and Willie Creek) was 135,000. The escapement peaked at 57,702 for week 28 (5–11 July). The escapement was 91% age 1.3 and (Table 19). The m:f ratio was 1:1; the average length was 560 mm for males and 529 for females (Tables 36, 37).

Pink Salmon

Historically, North Peninsula pink runs have been of minor importance. In 1991, 4,249 pink salmon were caught, well below the 1981–90 average of 67,054 (Table 1). The peak catch of pink salmon in North Peninsula fisheries occurred during week 34 (16–22 August; Table 25). The North Peninsula escapement was 1,533 (Table 10).

Chum Salmon

A total of 191,300 chum salmon were caught in North Peninsula fisheries in 1991 (Table 1). The catch was well below the 1981–90 average of 416,992 (Table 1). Most of the catch occurred in the Harbor Point to Cape Seniavin reach (83,679) and in the Izembek-Moffet Bay Section (51,521; Table 5). The peak weekly catch (51,427) for the North Peninsula occurred during week 31 (26 July – 1 August; Table 25). Purse seines harvested 38% and drift gillnets 54% of the chum salmon. The North Peninsula catch was approximately 50% age 0.3 and 48% age 0.4 (Table 22).

The 1991 North Peninsula chum escapement was estimated at 495,038 fish with the majority (366,581 or 74%) occurring in the Northwestern District (Table 10). The highest concentrations in the Northwestern District were in the Joshua Green River (170,753), Moffet Springs Creek (57,340), and Moffet Creek (47,740) which are all located in the Izembek-Moffet Bay Section. In the Northern District the largest escapements were in Lawrence Valley Creek (33,343) and Grass Valley Creek (24,027), both located within Herendeen Bay.

Coho Salmon

In 1991, 217,400 coho salmon were harvested in North Peninsula waters, which was 16% above the 1981–90 average of 182,619 (Table 1). The peak catch occurred during week 34 (16–22 August) when 68,688 salmon were harvested (Table 25). Most of the catch was in the Nelson Lagoon Section (31%; 67,420), Cinder River Section (23%; 50,643), and the Inner Port Heiden Section (17%; 37,249;

Table 5). Drift gillnets harvested 66% and set gillnets 26% of the harvest, respectively (Table 5). Age-1.1 (14%) and age-2.1 (78%) dominated the catch (Table 23).

Coho escapements to the North Peninsula were poorly monitored in 1991 because of budget limitations and poor survey conditions. The total coho salmon escapement was estimated at 177,120 fish, occurring mainly in the Northern District (Table 10). The largest escapements were in the Nelson Lagoon system (79,200) and the Ilnik River system (64,800).

LITERATURE CITED

ADF&G (Alaska Department of Fish and Game). 1990. 1990–1991 Bristol Bay and Westward Alaska commercial fishing regulations salmon and miscellaneous finfish. Alaska Department of Fish and Game, Division of Commercial Fisheries, Juneau.

Barrett, B.M. 1972. 1972 Tustumena sockeye salmon research report. Alaska Department of Fish and Game, Division of Commercial Fisheries (Region II unpublished report), Soldotna.

Barrett, B.M., F.M. Thompson, and S.N. Wick. 1985. Adult anadromous fish investigations: May–October 1984. Alaska Department of Fish and Game, Susitna Hydro Aquatic Report 6. Prepared for the Alaska Power Authority, Anchorage.

Bilton, H.T., and W.E. Ricker. 1965. Supplementary checks on the scales of pink salmon (*Oncorhynchus gorbuscha*) and chum salmon (*O. keta*). Journal of the Fisheries Research Board of Canada 22(6):1477–1489.

Clutter, R., and L. Whitesel. 1956. Collection and interpretation of sockeye salmon scales. International Pacific Salmon Fisheries Commission Bulletin 9. New Westminster, British Columbia, Canada.

Cochran, W. 1977. Sampling techniques, 3rd edition. John Wiley and Sons, Inc. New York.

Cousens, N.B.F., G.A. Thomas, C.G. Swann, and M.C. Healey. 1982. A review of salmon escapement estimation techniques. Canadian Technical Report of Fisheries and Aquatic Sciences 1108. Nanaimo, British Columbia, Canada.

Geiger, J.G. 1989. A stock identification study in the northern Alaska Peninsula sockeye salmon fishery, from Harbor Point to Strogonof Point. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 5J89-11, Juneau.

INPFC (International North Pacific Fisheries Commission). 1963. Annual Report 1961. Vancouver, British Columbia, Canada.

LITERATURE CITED (Continued)

Johnson, B.A., and B.M. Barrett. 1988. Estimation of salmon escapement based on stream survey data: a geometric approach. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K88-35, Kodiak.

McCullough, J.N. 1989. Alaska Peninsula-Aleutian Islands Area catch and escapement statistics, 1988. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K89-13, Kodiak.

McCullough, J.N. 1990. Alaska Peninsula and Aleutian Islands Management Areas Salmon catch, escapement, and run statistics, 1989. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K90-19, Kodiak.

Minard, R.E. 1986. Calibration of aerial surveys and determination of streamlife for coho salmon (*O. kisutch*) spawning in the Gechiak River. Alaska Department of Fish and Game, Division of Commercial Fisheries. Unpublished report presented at the Bristol Bay Coho Salmon Workshop (February 4, 1986). Dillingham.

Mosher, K.H. 1968. Photographic atlas of sockeye salmon scales. Bureau of the U.S. Fish and Wildlife Service, Fishery Bulletin 67(2):243-280.

Murphy, R.L. 1991. Alaska Peninsula and Aleutian Islands Management catch, escapement, and run statistics, 1991. Alaska Department of Fish and Game, Division of Commercial Fisheries, Technical Fishery Report 91-12, Juneau.

Murphy, R.L., and P.A. Roche 1991. Alaska Peninsula and Aleutian Islands Management Areas salmon catch, escapement, and run statistics, 1990. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K91-18, Kodiak.

Neilson, J.D., and G.H. Geen. 1981. Enumeration of spawning salmon from spawner residence time and aerial counts. Transactions of the American Fisheries Society 110:554-556.

Roos, J.F. 1957. Report on Chignik adult red salmon, studies, 1955–1956. Masters thesis, Fisheries Research Institute, University of Washington, Seattle.

Shaul, A.R. 1989. 1988 salmon report to the Alaska Board of Fisheries: Alaska Peninsula-Aleutian Islands Management Area. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K89-4, Kodiak.

LITERATURE CITED (Continued)

Shaul, A.R., and L.J. Schwarz. 1989. 1988 Alaska Peninsula-Aleutian Islands Areas salmon and herring annual management report. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K89-11, Kodiak.

Shaul, A.R., J.N. McCullough, A.J. Quimby, R.S. Berceli, and M.E. Stopha. 1991. Alaska Peninsula and Aleutian Islands annual salmon and herring management report. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K91-12, Kodiak.

Swanton, C.O., and R.L. Murphy. 1992. Origins of sockeye salmon caught within the Harbor Point to Strogonof Point Reach of the Alaska Peninsula Management Area, 8 July through 21 July, 1990. Technical Fisheries Report 92-04, Juneau.

Thompson, S.K. 1987. Sample size for estimating multinomial proportions. American Statistician 41:42–46.

Table 1. The commercial salmon catch in the Alaska Peninsula and Aleutian Islands Management Areas by species, 1971–1991.

Year	Area	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
1971	South Peninsula	2,200	715,500	1,450,100	1,366,600	16,800	3,551,200
	Aleutians	0	300	45,400	100	0	45,800
	North Peninsula	2,200	354,200	300	64,200	8,200	429,100
		4,400	1,070,000	1,495,800	1,430,900	25,000	4,026,100
1972	South Peninsula	1,300	557,800	78,000	727,500	8,000	1,372,600
	Aleutians	0	100	2,800	0	0	2,900
	North Peninsula	1,800	179,500	0	84,700	9,600	275,600
		3,100	737,400	80,800	812,200	17,600	1,651,100
1973	South Peninsula	400	330,200	58,000	293,000	6,600	688,200
	Aleutians	0	100	7,000	0	0	7,100
	North Peninsula	4,400	171,800	300	155,700	26,900	359,100
		4,800	502,100	65,300	448,700	33,500	1,054,400
1974	South Peninsula	500	204,700	99,700	71,500	9,400	385,800
	Aleutians	0	0	0	0	0	0
	North Peninsula	5,100	247,900	10,500	35,300	24,000	322,800
		5,600	452,600	110,200	106,800	33,400	708,600
1975	South Peninsula	100	268,400	61,700	132,900	0	463,100
	Aleutians	0	0	0	0	0	0
	North Peninsula	2,100	233,500	300	8,700	28,200	272,800
		2,200	501,900	62,000	141,600	28,200	735,900
1976	South Peninsula	2,100	375,000	2,367,000	532,500	200	3,276,800
	Aleutians	0	0	0	0	0	0
	North Peninsula	4,900	641,100	600	73,600	26,000	746,200
		7,000	1,016,100	2,367,600	606,100	26,200	4,023,000
1977	South Peninsula	500	311,700	1,448,600	243,200	2,100	2,006,100
	Aleutians	0	0	0	0	0	0
	North Peninsula	5,500	471,100	900	129,100	34,100	640,700
		6,000	782,800	1,449,500	372,300	36,200	2,646,800
1978	South Peninsula	800	579,500	5,608,800	547,000	60,700	6,796,800
	Aleutians	0	1,800	38,100	0	0	39,900
	North Peninsula	14,200	896,200	466,600	163,200	63,300	1,603,500
		15,000	1,477,500	6,113,500	710,200	124,000	8,440,200
1979	South Peninsula	2,100	1,149,700	6,570,500	483,000	356,500	8,561,800
	Aleutians	0	12,200	539,400	200	0	551,800
	North Peninsula	17,100	1,979,500	5,000	65,700	112,800	2,180,100
		19,200	3,141,400	7,114,900	548,900	469,300	11,293,700

-Continued-

Table 1. (page 2 of 3)

Year	Area	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
1980	South Peninsula	4,800	3,613,000	7,961,500	1,351,200	274,200	13,204,700
	Aleutians	0	9,200	2,597,500	4,900	0	2,611,600
	North Peninsula	16,800	1,397,100	301,700	700,200	127,900	2,543,700
		21,600	5,019,300	10,860,700	2,056,300	402,100	18,360,000
Average 1971-1980							
	South Peninsula	1,480	810,550	2,570,390	574,840	73,450	4,030,710
	Aleutians	0	2,370	323,020	520	0	325,910
	North Peninsula	7,410	657,190	78,620	148,040	46,100	937,360
		8,890	1,470,110	2,972,030	723,400	119,550	5,293,980
1981	South Peninsula	10,200	2,255,200	5,035,900	1,770,300	162,200	9,233,800
	Aleutians	0	5,400	302,800	6,600	200	315,000
	North Peninsula	18,300	1,844,900	11,200	706,800	155,400	2,736,600
		28,500	4,105,500	5,349,900	2,483,700	317,800	12,285,400
1982	South Peninsula	9,800	2,346,000	6,734,900	2,272,500	256,000	11,619,200
	Aleutians	0	2,700	1,447,800	6,100	0	1,456,600
	North Peninsula	30,100	1,435,300	12,300	331,100	238,000	2,046,800
		39,900	3,784,000	8,195,000	2,609,700	494,000	15,122,600
1983	South Peninsula	26,900	2,556,600	2,827,600	1,707,100	127,700	7,245,900
	Aleutians	0	4,400	2,000	11,400	0	17,800
	North Peninsula	29,500	2,093,400	3,400	348,700	75,100	2,550,100
		56,400	4,654,400	2,833,000	2,067,200	202,800	9,813,800
1984	South Peninsula	9,200	2,318,000	11,589,300	1,656,500	309,100	15,882,100
	Aleutians	0	67,200	2,309,700	33,900	0	2,410,800
	North Peninsula	23,000	1,734,900	27,400	796,700	198,600	2,780,600
		32,200	4,120,100	13,926,400	2,487,100	507,700	21,073,500
1985	South Peninsula	7,884	2,214,583	4,438,598	1,393,285	172,514	8,226,864
	Aleutians	40	2,750	90	14,175	0	17,055
	North Peninsula	23,553	2,600,589	3,055	670,644	167,740	3,465,581
		31,477	4,817,922	4,441,743	2,078,104	340,254	11,709,500
1986	South Peninsula	5,589	1,223,089	4,031,487	1,749,651	235,854	7,245,670
	Aleutians	11	7,702	42,621	38,819	60	89,213
	North Peninsula	11,740	2,463,735	22,630	271,216	165,201	2,934,522
		17,340	3,694,526	4,096,738	2,059,686	401,115	10,269,405
1987	South Peninsula	9,174	1,449,753	1,208,556	1,376,267	224,740	4,268,490
	Aleutians	0	75	0	0	0	75
	North Peninsula	14,186	1,209,435	3,486	368,696	171,784	1,767,587
		23,360	2,659,263	1,212,042	1,744,963	396,524	6,036,152

-Continued-

Table 1. (page 3 of 3)

Year	Area	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
1988	South Peninsula	11,075	1,473,636	7,044,824	1,908,507	505,533	10,943,575
	Aleutians	0	4,315	183,109	450	7	187,881
	North Peninsula	16,805	1,528,116	65,242	393,077	233,966	2,237,206
		27,880	3,006,067	7,293,175	2,302,034	739,506	13,368,662
1989	South Peninsula	7,047	2,660,706	7,292,658	994,231	443,843	11,398,485
	Aleutians	0	8,248	6,700	0	0	14,948
	North Peninsula	10,946	1,718,689	4,103	157,177	227,551	2,118,466
		17,993	4,387,643	7,303,461	1,151,408	671,394	13,531,899
1990	South Peninsula	16,497	2,385,560	2,861,283	1,234,679	305,510	6,803,529
	Aleutians	2	12,435	282,823	1,038	74	296,372
	North Peninsula	12,318	2,415,889	517,724	125,813	192,849	3,264,593
		28,817	4,813,884	3,661,830	1,361,530	498,433	10,364,494
Average 1981-1990							
	South Peninsula	11,337	2,088,313	5,306,511	1,606,302	274,299	9,286,761
	Aleutians	5	11,523	457,764	11,248	34	480,574
	North Peninsula	19,045	1,904,495	67,054	416,992	182,619	2,590,206
		30,387	4,004,331	5,831,329	2,034,543	456,953	12,357,541
1991	South Peninsula	7,914	2,312,512	10,607,619	1,582,543	317,054	14,791,000
	Aleutians	0	796	0	0	0	800
	North Peninsula	9,370	2,391,183	4,249	191,183	218,264	2,814,400
		17,400	4,699,000	10,599,000	1,764,000	530,000	17,610,000

Table 2. Alaska Peninsula and Aleutian Islands Management Areas listing of allowable gear by district and section, 1991.

District	Set Gillnet	Drift Gillnet	Purse Seine	Hand Purse Seine	Beach Seine
SOUTH PENINSULA					
Southeastern District	X		X	X	
South Central District[a]	X	X	X		
Southwestern District[b]	X		X	X	
Unimak District	X	X	X	X	
ALEUTIAN ISLANDS AREA			X	X	X
NORTH PENINSULA					
Northwestern District	X	X	X	X	
Northern District					
Black Hills Section	X	X			
Caribou Flats Section	X	X			
Nelson Lagoon Section	X	X			
Herendeen-Moller Bay Section	X	X	X	X	
Bear River Section		X	X	X	
Three Hills Section		X			
Port Heiden Section	X	X			
Cinder River Section	X	X			

[a] Set gillnet gear is not allowed in the Canoe Bay Section of the South Central District.

[b] Drift gillnet gear is allowed in the Ikatan Bay Section of the Southwestern District.

Table 3. Districts, sections, and statistical areas for the Alaska Peninsula and Aleutian Islands Management Areas, 1991.

Fishing Area Location	Statistical Areas
SOUTH PENINSULA	
Southeastern District	
Southeast Mainland District	281-15; 281-25; 281-30; 281-40; 281-50; 281-60; 283-70; 283-80; 283-90
Shumagin Island Section	282-10; 282-11; 282-20; 282-25; 282-30; 282-35; 282-40; 282-42; 282-45; 282-50; 282-55; 282-60; 282-65; 282-70; 282-75; 282-80
South Central District	
Canoe Bay	283-24
Pavlof Bay	283-21; 283-23; 283-25; 283-26
Southwestern District	
Volcano Bay	284-36
Belkofski Bay	284-42
King Cove	284-65
Cold Bay	284-67
Deer Island	284-55
Thin Point	284-62
Morzhovoi Bay	284-80
Ikatan Bay	284-90
Unimak District	
Sanak Islands	285-10
Cape Lazaref	285-30
Cape Lutke	285-40
ALEUTIAN ISLANDS AREA	
Unalaska District	302-22
NORTH PENINSULA	
Northwestern District	
Urilia Bay	311-32
Swanson Lagoon	311-52
Bechevin Bay	311-60
Izembek-Moffet Bay Section	312-10; 312-20; 312-40
Northern District	
Black Hills Section	313-10
Nelson Lagoon Section	313-30
Herendeen Bay	314-20
Harbor Point to Cape Seniavin	314-12; 315-11; 315-20
Cape Seniavin to Strogonof Point	316-10; 316-20; 316-22; 316-25
Outer Port Heiden Section	317-10
Inner Port Heiden Section	317-20
Cinder River Section	318-20

Table 4. Statistical weeks and corresponding calendar dates, 1991.

Statistical Week	Calendar Dates	Statistical Week	Calendar Dates
1	01 Jan to 03 Jan	28	05 Jul to 11 Jul
2	04 Jan to 10 Jan	29	12 Jul to 18 Jul
3	11 Jan to 17 Jan	30	19 Jul to 25 Jul
4	18 Jan to 24 Jan	31	26 Jul to 01 Aug
5	25 Jan to 31 Jan	32	02 Aug to 08 Aug
6	01 Feb to 07 Feb	33	09 Aug to 15 Aug
7	08 Feb to 14 Feb	34	16 Aug to 22 Aug
8	15 Feb to 21 Feb	35	23 Aug to 29 Sep
9	22 Feb to 28 Feb	36	30 Aug to 05 Sep
10	01 Mar to 07 Mar	37	06 Sep to 12 Sep
11	08 Mar to 14 Mar	38	13 Sep to 19 Sep
12	15 Mar to 21 Mar	39	20 Sep to 26 Sep
13	22 Mar to 28 Mar	40	27 Sep to 03 Oct
14	29 Mar to 04 Apr	41	04 Oct to 10 Oct
15	05 Apr to 11 Apr	42	11 Oct to 17 Oct
16	12 Apr to 18 Apr	43	18 Oct to 24 Oct
17	19 Apr to 25 Apr	44	25 Oct to 31 Oct
18	26 Apr to 02 May	45	01 Nov to 07 Nov
19	03 May to 09 May	46	08 Nov to 14 Nov
20	10 May to 16 May	47	15 Nov to 21 Nov
21	17 May to 23 May	48	22 Nov to 28 Nov
22	24 May to 30 May	49	29 Nov to 05 Dec
23	31 May to 06 Jun	50	06 Dec to 12 Dec
24	07 Jun to 13 Jun	51	13 Dec to 19 Dec
25	14 Jun to 20 Jun	52	20 Dec to 26 Dec
26	21 Jun to 27 Jun	53	27 Dec to 31 Dec
27	28 Jun to 04 Jul		

Table 5. Commercial set gillnet, drift gillnet, and purse seine salmon harvest by area and species in the Alaska Peninsula and Aleutian Islands Management Areas, 1991.

Area	Gear	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
SOUTH PENINSULA							
Southeastern District							
Southeast Mainland	Seine	551	60,417	1,945,583	126,403	36,910	2,169,864
District	Set Gillnet	512	336,238	173,633	68,747	12,963	790,871
	Total	1,063	396,655	2,119,216	195,150	50,102	2,960,735
Shumagin Island Section	Seine	1,502	337,288	191,186	59,111	0	349,514
June	Set Gillnet	107	37,617	124	4,390	0	4,390
	June Total	1,870	255,649	70,855	63,498	0	391,872
Shumagin Island Section	Seine	1,099	87,380	2,021,704	161,630	125,881	2,397,694
Post-June	Set Gillnet	296	124,538	119,134	50,034	16,949	310,951
	Post Total	1,396	212,091	2,140,838	211,667	142,847	2,708,645
Shumagin Island Section	Seine	2,451	355,919	2,137,536	257,386	125,888	2,879,180
Total	Set Gillnet	352	189,444	121,517	56,883	16,965	385,161
	Total	2,803	545,363	2,259,053	314,269	142,853	3,264,341
South Central District							
Canoe Bay	Seine	14	178	170,656	38,806	54	209,708
	Total	14	178	170,656	38,806	54	209,708
Pavlof Bay	Seine	62	22,669	2,300,112	106,340	2,260	2,431,443
	Set Gillnet	1	743	1,979	1,900	575	5,198
	Total	63	23,412	2,302,091	108,240	2,835	2,436,641
Southwestern District							
Volcano Bay	Seine	0	467	177,822	76,438	92	254,819
	Set Gillnet	1	2,510	3,470	2,825	603	9,409
	Total	1	2,977	181,292	79,263	695	264,228

-Continued-

Table 5. (page 2 of 5)

Area	Gear	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
Belkofski Bay	Seine	38	3,325	785,149	56,366	883	845,761
	Set Gillnet	4	3,491	3,429	596	303	3,914
	Total	42	6,816	788,578	56,962	1,186	849,675
Morzhovoi Bay	Seine	1	30	248	22,900	38	23,217
	Set Gillnet	11	3,068	1,431	1,693	1,082	7,275
	Total	12	3,098	1,679	24,593	1,120	37,767
Unimak District							
South Unimak June	Seine	1,769	650,461	499,634	408,719	4	1,560,587
	Set Gillnet	60	25,707	115	3,937	0	29,818
	Drift Gillnet	1,237	539,490	1,173	256,132	1	798,033
	Total	3,066	1,215,658	500,922	668,788	5	2,388,438
South Unimak Post-June	Seine		17,532	28,811	39,284	184	85,865
	Set Gillnet		13,737	1,818	2,346	3,671	21,598
	Drift Gillnet	122	132,907	32,086	46,700	42,659	254,474
	Total	202	156,934	62,715	88,330	46,448	361,937
Ikatan Peninsula To Cape Lazaref	Seine	488	206,460	214,439	73,930	3,985	499,302
	Set Gillnet	102	26,999	2,378	10,310	11,006	50,795
	Drift Gillnet	696	261,348	27,202	134,825	51,215	475,286
	Total	1,286	494,807	244,019	219,065	66,206	1,025,383
Cape Lutke Section	Seine	1,255	436,976	291,641	319,079	2	1,048,953
	Drift Gillnet	603	299,863	711	146,772	1	447,950
	Total	1,858	736,838	292,352	465,851	3	1,496,903
ALEUTIAN ISLANDS AREA	Seine	0	796	0	0	0	796
	Total	0	796	0	0	0	796

-Continued-

Table 5. (page 3 of 5)

Area	Gear	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
NORTH PENINSULA							
Northwestern District							
Urilia Bay	Seine	1	96,470	5	1,649	0	98,125
	Set Gillnet	7	20,535	1	76	0	20,619
	Drift Gillnet	30	29,589	0	405	0	30,024
	Total	38	146,594	6	2,130	0	148,768
Swanson Lagoon Section	Seine	1	5,893	0	2,095	18,425	26,414
	Set Gillnet	0	1,060	0	220	0	1,280
	Drift Gillnet	4	2,596	2	634	444	3,680
	Total	5	9,549	2	2,949	18,869	31,374
Izembek-Moffet Bay Section	Seine	0	24,297	2	51,060	0	75,359
	Total	0	24,297	2	51,060	0	75,359
Northern District							
Nelson Lagoon Section	Set Gillnet	2,411	188,602	20	5,142	41,356	237,531
	Drift Gillnet	1,039	85,133	12	2,232	26,064	114,480
	Total	3,450	273,735	32	7,374	67,420	352,011
Herendeen Bay	Seine	0	1	0	12,200	0	12,201
	Drift Gillnet	0	51	0	466	0	517
	Total	1	52	0	12,666	0	12,719
Harbor Point To Cape Seniavin	Seine	0	10,823	0	196	0	11,019
	Set Gillnet	202	4,535	108	10,888	114	15,847
	Drift Gillnet	1,644	1,033,842	535	72,595	36,413	1,145,029
	Total	2,199	880,101	18,504	31,574	20,635	953,013
Cape Seniavin To Strogonof Point	Set Gillnet	1	2,764	3	76	7	2,851
	Drift Gillnet	253	838,163	125	20,711	3,961	863,213
	Total	254	840,927	128	20,787	3,968	866,064

-Continued-

Table 5. (page 4 of 5)

Area	Gear	Number of Salmon						
		Chinook	Sockeye	Pink	Chum	Coho	Total	Percent
Ilnik Lagoon	Set Gillnet	1	23,928	2	20	3,484	27,435	
	Total	1	23,928	2	20	3,484	27,435	
Inner Port Heiden	Set Gillnet	315	5,234	0	439	3,998	9,986	
	Drift Gillnet	2,824	205	0	6	33,251	36,286	
	Total	3,139	5,439	0	445	37,249	46,272	
Cinder River Section	Set Gillnet	0	3	0	0	7,369	7,372	
	Drift Gillnet	2	293	0	219	43,274	43,788	
	Total	2	296	0	219	50,643	51,160	
SOUTH PENINSULA TOTAL	Seine	5,206	1,151,338	10,229,999	1,139,506	199,115	12,725,164	86.0
	Set Gillnet	1,005	591,982	338,684	151,351	62,892	1,145,914	7.8
	Drift Gillnet	1,299	561,211	27,913	281,597	51,216	923,236	6.2
	Total	7,510	2,304,531	10,596,596	1,572,454	313,223	14,794,314	100.0
ALEUTIAN ISLANDS AREA TOTAL								
	Seine	0	796	0	0	0	796	100.0
	Total	0	796	0	0	0	796	100.0
NORTH PENINSULA TOTAL	Seine	2	137,568	3,381	72,735	18,435	231,925	8.2
	Set Gillnet	2,937	246,941	154	16,976	56,336	323,344	11.5
	Drift Gillnet	6,431	2,007,577	714	101,772	142,603	2,259,097	80.3
	Total	9,370	2,392,086	4,249	191,283	217,374	2,814,362	100.0
ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS CATCH BY GEAR TYPE								
	Seine	5,208	1,289,702	10,233,380	1,212,041	217,550	12,957,881	73.6
	Set Gillnet	3,942	838,923	338,838	168,327	119,228	1,469,258	8.3
	Drift Gillnet	7,730	2,568,788	28,627	383,369	193,819	3,182,333	18.1
	Total	16,880	4,697,413	10,600,845	1,763,737	530,597	17,609,472	100.0

-Continued-

Table 5. (page 5 of 5)

Area	Gear	Number of Salmon						
		Chinook	Sockeye	Pink	Chum	Coho	Total	Percent
ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS CATCH BY REGION								
SOUTH PENINSULA		7,914	2,312,512	10,607,619	1,582,543	317,054	14,791,000	84.0
ALEUTIAN		0	796	0	0	0	796	0.0
NORTH PENINSULA		9,370	2,210,859	4,249	128,543	198,417	2,814,362	16.0
Total		17,400	4,699,000	10,599,000	1,778,700	530,000	17,610,000	
Percent		0.1	26.7	60.2	10.0	3.0	100.0	

Table 6. Shumagin Islands Section commercial salmon catch, June and post-June, 1979–91.

Year	Chinook	Sockeye	Pink	Chum	Coho	Total
			Number of Salmon			
			June			
1979	475	179,139	105,813	40,953	252	326,632
1980[a]	342	572,090	465,652	71,330	34	1,109,448
1981	1,263	362,520	129,283	57,338	251	550,655
1982	1,554	450,548	686,671	161,308	0	1,300,081
1983	5,277	416,494	15,434	169,277	3	606,485
1984	1,830	256,838	449,188	109,207	14	817,077
1985	2,142	366,607	37,465	133,542	2,466	542,222
1986	560	156,027	141,315	99,048	1	396,951
1987	1,146	140,567	5,640	37,064	0	184,417
1988	1,939	282,230	93,546	61,946	244	439,905
1989	487	396,958	45,067	47,528	0	490,040
1990	1,870	255,649	70,855	63,498	0	391,872
Average	1,574	319,639	187,161	87,670	272	596,315
1991	1,407	333,272	118,215	102,602	7	555,503
			Post-June			
1979	910	145,369	2,076,670	93,527	313,573	2,630,049
1980	1,380	138,438	1,545,827	262,462	233,456	2,181,563
1981	4,009	116,297	1,364,026	307,980	126,955	1,919,267
1982	1,889	67,269	1,638,712	296,426	207,273	2,211,569
1983	6,547	108,365	900,726	220,824	92,403	1,328,865
1984	3,222	96,149	1,786,737	259,497	211,648	2,357,253
1985	461	107,792	1,632,827	205,899	113,193	2,060,172
1986	3,121	341,811	1,497,892	557,332	201,518	2,601,674
1987	3,388	248,934	542,383	310,540	157,936	1,263,181
1988	5,955	416,917	3,396,332	415,308	351,118	4,585,630
1989	2,493	418,124	2,026,996	239,366	251,206	2,938,185
1990	4,939	424,473	1,106,869	347,246	183,386	2,066,913
Average	3,193	219,162	1,626,333	293,034	203,639	2,345,360
1991	1,396	212,091	2,140,838	211,667	142,846	2,708,838
			Combined June and Post-June			
1979	1,385	324,508	2,182,483	134,480	313,825	2,956,681
1980	1,722	710,528	2,011,479	333,792	233,490	3,291,011
1981	5,272	478,817	1,493,309	365,318	127,206	2,469,922
1982	3,443	517,817	2,325,383	457,734	207,273	3,511,650
1983	11,824	524,859	916,160	390,101	92,406	1,935,350
1984	5,052	352,987	2,235,925	368,704	211,662	3,174,330
1985	2,603	474,399	1,670,292	339,441	115,659	2,602,394
1986	3,681	497,838	1,639,207	656,380	201,519	2,998,625
1987	4,534	389,501	548,023	347,604	157,936	1,447,598
1988	7,894	699,147	3,489,878	477,254	351,362	5,025,535
1989	2,980	815,082	2,072,063	286,894	251,206	3,428,225
1990	6,809	680,122	1,177,724	410,744	184,304	2,458,785
Average	4,767	538,800	1,813,494	380,704	203,988	2,941,676
1991	2,803	545,363	2,259,053	314,269	142,853	3,264,341

[a] June 1980 catch includes catch through 5 July.

Table 7. South Unimak fishery commercial salmon catch, June and post-June, 1979–1991.

Year	Chinook	Sockeye	Pink	Chum	Coho	Total
			Number of Salmon			
			June			
1979	569	670,241	48,906	62,725	38	782,479
1980	2,927	2,730,004	1,140,611	458,618	853	4,333,013
1981	4,458	1,468,284	324,517	522,091	83	2,319,433
1982	5,569	1,667,303	1,032,154	933,476	1,241	3,639,743
1983	8,179	1,545,075	40,441	616,354	1	2,210,050
1984	2,024	1,131,365	470,688	227,913	0	1,831,990
1985	4,101	1,454,969	69,811	324,825	2	1,853,708
1986	1,364	315,370	150,674	252,721	1	720,130
1987	4,017	652,397	11,342	406,335	0	1,074,091
1988	2,125	474,457	86,678	464,765	11	1,028,036
1989	2,263	1,347,547	154,168	407,635	0	1,911,613
1990	8,444	1,080,522	445,230	446,086	510	1,856,191
Average	3,837	1,211,461	331,268	426,961	229	1,963,373
1991	3,064	1,211,731	500,597	668,742	4	2,381,074
			Post-June			
1979	15	12,863	11,509	7,558	42	31,987
1980	0	3,513	346,372	80,381	173	430,439
1981	86	18,272	17,510	57,773	655	94,296
1982	150	21,194	54,704	56,383	25,596	158,027
1983	4,675	65,436	18,011	217,359	12,709	318,190
1984	558	68,123	337,017	198,231	64,366	668,295
1985	65	36,683	39,130	100,731	29,539	206,148
1986	115	65,796	61,448	40,599	26,821	194,779
1987	134	54,370	6,414	53,621	33,317	147,856
1988	293	70,697	245,581	133,659	84,643	534,873
1989	387	116,339	104,385	72,188	101,520	394,819
1990	202	164,176	62,718	88,330	46,514	300,635
Average	557	58,122	108,733	92,234	35,491	290,028
1991	150	29,774	37,543	37,309	66,965	174,805
			Combined June and Post-June			
1979	584	683,104	60,415	70,283	80	814,466
1980	2,927	2,733,517	1,486,983	538,999	1,026	4,763,452
1981	4,544	1,486,556	342,027	579,864	738	2,413,729
1982	5,719	1,688,497	1,086,858	989,859	26,837	3,797,770
1983	12,854	1,610,511	58,452	833,713	12,710	2,528,240
1984	2,582	1,199,488	807,705	426,144	64,366	2,500,285
1985	4,166	1,491,652	108,941	425,556	29,541	2,059,856
1986	1,479	381,166	212,122	293,320	26,822	914,909
1987	4,151	706,767	17,756	459,956	33,317	1,221,947
1988	2,418	545,154	332,259	598,424	84,654	1,562,909
1989	2,650	1,463,886	258,553	479,823	101,520	2,306,432
1990	8,646	1,244,698	507,948	534,416	47,024	2,156,826
Average	4,393	1,269,583	440,002	519,196	35,720	2,253,402
1991	3,214	1,241,505	538,140	706,051	66,969	2,555,879

Table 8. North Peninsula Harbor Point to Strogonof Point commercial sockeye salmon harvest, 1974–91.

	Catch Area				
	Harbor Point to Cape Seniavin		Cape Seniavin to Strogonof Point		
Year	Number	Percent	Number	Percent	Total Number
1974[a]	160,515	77.4	46,895	22.6	207,410
1975[a]	169,469	95.1	8,707	4.9	178,176
1976[a]	320,221	59.3	219,719	40.7	539,940
1977[a]	275,763	73.8	97,887	26.2	373,650
1978[a]	592,592	94.9	32,168	5.1	624,760
1979	1,352,903	87.4	194,362	12.6	1,547,265
1980	752,144	74.9	252,227	25.1	1,004,371
1981	1,327,800	95.1	68,900	4.9	1,396,700
1982	1,009,300	87.6	142,500	12.4	1,151,800
1983	1,126,200	60.7	729,600	39.3	1,855,800
Average	708,691	80.6	179,297	19.4	887,987
1984	637,400	46.2	743,700	53.8	1,381,100
1985	827,075	45.8	978,154	54.2	1,805,229
1986	939,131	45.0	1,148,840	55.0	2,087,971
1987	214,637	23.0	719,351	77.0	933,988
1988	498,718	40.1	745,996	59.9	1,244,714
1989	562,137	42.9	748,987	57.1	1,311,124
1990	880,101	48.3	942,900	51.7	1,823,001
1991	1,049,200	54.8	864,855	45.2	1,914,055
Average	701,050	43.3	861,598	56.7	1,562,648

[a] Statistical area 314-12 is not included in Harbor Point to Cape Seniavin data.

Table 9. Alaska Peninsula and Aleutian Islands Management Areas total subsistence salmon catch expanded and estimated from returned permits, 1991.

Area	Permits			Number of Salmon					
	Issued	Returned	Percent Returned	Chinook	Sockeye	Pink	Chum	Coho	Total
SOUTH PENINSULA									
Sand Point	84	69	82.1	381	6,535	1,231	2,693	1,108	11,948
King Cove	60	29	48.3	0	1,477	225	386	3,611	5,669
Cold Bay	23	19	82.6	0	517	6	4	30	557
False Pass	17	11	64.7	17	724	354	165	500	1,760
Total	184	128	69.6	398	9,253	1,816	3,248	5,249	19,934
ALEUTIAN ISLANDS									
Aleutians	89	48	53.9	0	1,294	1,075	45	666	3,080
Total	94	36	38.3	0	1.294	1,075	45	666	3,080
NORTH PENINSULA									
Nelson Lagoon-Port Moller	8	8	100.0	20	370	1	4	139	534
Port Heiden	6	6	100.0	39	375	3	120	25	562
Total	14	14	100.0	59	745	4	124	164	1,096
Totals	292	178	60.9	456	11,292	2,895	3,417	6,079	24,110

Table 10. Alaska Peninsula and Aleutian Islands Management Areas estimated total escapement by district, 1991.

Area	Number of Salmon					
	Chinook	Sockeye	Pink	Chum	Coho	Total
SOUTH PENINSULA						
Southeastern District	0	44,093	1,300,794	276,545	1,140	1,622,572
South Central District	0	6,450	1,674,668	170,262	0	1,851,380
Southwestern District	0	102,600	762,967	278,929	1,560	1,146,056
Unimak District	0	0	5,620	540	0	6,160
Total	0	153,143	3,776,966	726,276	2,700	4,659,085
ALEUTIAN ISLANDS						
Unalaska District	0	298	16,786	52	-	17,139
Total	0	298	16,786	52	-	17,139
NORTH PENINSULA						
Northwestern District	192	143,291	1,433	366,581	200	511,697
Northern District	16,934	1,040,955	100	128,457	176,920	1,363,366
Total	17,126	1,184,246	1,533	495,038	177,120	1,875,063
TOTAL	17,126	1,337,687	3,795,285	1,221,366	179,823	6,551,287

Table 11. South Unimak commercial salmon catch by statistical week and species, June and post-June, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Coho	Pink	Chum	Total
					June					
25	06/14-06/20	69	160	13	2,278	618,344	2	208,523	294,815	1,123,962
26	06/21-06/27	90	127	12	788	597,314	3	292,399	373,973	1,264,477
	Totals				3,066	1,215,658	5	500,922	668,788	2,388,439
					Post-June					
28	07/05-07/11	6	6	5	37	7,220	1,972	5,150	2,143	16,522
29	07/12-07/18	0	8	-	14	1,679	5,627	44	1,146	8,510
30	07/19-07/25	-	29	-	68	8,342	24,655	8,321	12,704	54,090
31	07/26-08/01	-	36	-	19	11,357	27,814	14,379	11,452	65,021
32	08/02-08/08	-	14	-	11	2,882	4,832	7,401	5,649	20,775
33	08/09-08/15	0	8	4	1	1,124	1,419	2,135	3,225	7,904
34	08/16-08/22	0	-	-	-	-	-	-	-	-
37	09/06-09/12	0	-	0	-	-	-	-	-	-
	Totals				150	32,838	66,965	37,543	37,309	174,805
PURSE SEINE					1,813	653,295	4,747	507,849	414,144	1,581,848
DRIFT GILLNET					1,299	561,211	51,216	27,913	281,597	923,236
SET GILLNET					102	26,999	11,006	2,378	10,310	50,795
Totals		101	165	12	3,214	1,241,882	66,969	538,140	706,357	2,556,562

Table 12. Shumagin Islands Section commercial salmon catch by statistical week and species, June and post-June, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Coho	Pink	Chum	Total
					June					
25	06/14-06/20	48	0	50	1,246	224,703	0	68,920	57,804	352,673
26	06/21-06/27	43	0	35	161	108,569	7	49,295	44,798	202,830
	Total				1,407	333,272	7	118,215	102,602	555,503
					Post-June					
28	07/05-07/11	0	0	37	209	49,164	1,273	2,347	8,890	61,883
29	07/12-07/18	4	0	34	227	17,519	6,522	15,243	8,253	47,764
30	07/19-07/25	66	0	46	756	38,504	68,859	320,668	36,486	465,273
31	07/26-08/01	44	0	23	321	31,674	21,457	496,309	37,769	587,530
32	08/02-08/08	42	0	22	166	37,060	16,586	750,693	54,885	859,390
33	08/09-08/15	31	0	23	23	25,105	17,828	393,813	48,489	485,258
34	08/16-08/22	25	0	15	2	9,078	11,075	171,817	22,991	214,963
36	08/30-09/05	0	0	6	1	1,162	952	0	301	2,416
37	09/06-09/12	0	0	15	0	3,566	1,420	0	214	5,200
38	09/13-09/19	0	0	9	0	832	300	0	28	1,160
39	09/20-09/26	0	0	8	0	1,655	389	0	32	2,076
40	09/27-10/03	0	0	5	1	173	16	0	3	193
	Total				1,396	227,125	146,752	2,160,998	226,383	2,763,119
PURSE SEINE					2,451	355,919	125,888	2,137,536	257,386	2,879,180
SET GILLNET					352	189,444	16,965	121,517	56,883	385,161
Totals		87	0	60	2,803	545,363	142,853	2,259,053	314,269	3,264,341

Table 13. Southeast Mainland District commercial salmon catch by statistical week and species, pre-26 July and post-25 July, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Coho	Pink	Chum	Total
					Pre 26 July					
24	06/07-06/13	0	0	52	56	34,946	0	0	188	35,190
25	06/14-06/20	0	0	55	137	79,383	0	7	1,202	80,729
26	06/21-06/27	0	0	56	37	70,584	1	29	1,784	72,435
28	07/05-07/11	0	0	40	156	66,473	387	708	1,862	69,586
29	07/12-07/18	39	0	22	209	23,765	729	19,095	5,775	49,573
30	07/19-07/25	-	0	10	19	14,576	269	4,949	1,298	21,111
	Total				614	289,727	1,386	24,788	12,109	328,624
					Post 25 July					
31	07/26-08/01	46	0	43	326	49,023	25,661	893,172	68,356	1,036,538
32	08/02-08/08	38	0	30	116	22,599	8,110	684,172	62,131	777,128
33	08/09-08/15	26	0	16	7	20,259	8,883	441,606	41,747	512,502
34	08/16-08/22	15	0	3	0	2,694	1,159	75,478	8,712	88,043
36	08/30-09/05	0	0	14	0	4,560	1,413	0	1,072	7,045
37	09/06-09/12	0	0	20	0	5,269	2,179	0	830	8,278
38	09/13-09/19	0	0	14	0	2,444	853	0	188	3,485
39	09/20-09/26	0	0	-	-	-	-	-	-	-
40	09/27-10/03	0	0	-	-	-	-	-		
	Total				449	106,928	48,487	2,094,428	183,041	2,433,333
PURSE SEINE					551	60,417	37,910	1,945,583	126,403	2,169,864
SET GILLNET					512	336,238	12,963	173,633	68,747	592,093
Totals		72	0	63	1,063	396,655	50,102	2,119,216	195,150	2,761,957

Table 14. South Peninsula commercial salmon catch by statistical week, gear type, and species, 1991.

Catch Week	Permits	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
Purse Seine												
25	116	428	2,452	43,260	452,852	2,411,823	1	10	276,433	760,505	185,550	1,163,490
26	101	262	669	13,469	466,148	2,529,777	10	61	339,033	890,923	318,925	1,878,809
28	50	50	98	1,169	15,605	95,198	2,021	12,386	17,902	51,500	3,770	25,665
29	80	134	239	3,431	29,717	193,183	3,400	19,721	59,672	195,341	8,559	55,925
30	101	262	814	11,306	54,433	331,454	84,831	500,033	592,107	1,678,808	60,796	401,501
31	110	340	620	8,233	50,631	299,759	46,870	271,492	2,783,096	8,635,347	101,663	665,696
32	98	380	280	4,300	39,886	229,389	23,424	141,741	3,534,126	11,201,515	137,866	898,876
33	98	387	31	561	34,857	205,366	25,586	150,568	2,229,032	7,286,058	196,055	1,349,865
34	64	146	3	74	7,209	41,882	11,716	70,581	398,598	1,311,974	112,922	774,551
37	5	6	0	0	0	0	1,256	11,777	0	0	13,400	80,423
Total	130	2,395	5,206	85,803	1,151,338	6,337,831	199,115	1,178,370	10,229,999	32,011,971	1,139,506	7,294,801
Drift Gillnet												
25	160	741	981	16,243	327,047	1,781,871	1	6	933	3,009	160,421	1,012,445
26	127	295	256	4,390	212,443	1,140,446	0	0	240	862	95,711	608,624
28	6	6	3	80	1,145	6,760	670	3,854	123	477	445	2,886
29	8	14	4	45	1,034	5,901	3,405	19,597	27	100	810	5,329
30	29	61	37	517	7,119	42,727	19,353	113,685	6,245	23,778	7,785	50,830
31	36	99	14	192	9,622	57,246	23,858	141,637	13,394	50,587	10,095	65,503
32	14	35	3	38	2,115	13,538	2,990	18,944	5,486	20,838	3,935	25,517
33	8	19	1	23	636	3,643	744	5,120	1,465	5,714	2,100	16,104
34	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
Total	165	1,273	1,299	21,528	561,211	3,052,389	51,216	304,346	27,913	105,365	281,597	1,788,506
Set Gillnet												
24	52	124	56	938	34,946	247,101	0	0	0	0	188	1,394
25	73	429	228	3,139	142,531	925,415	0	0	84	307	7,850	51,306
26	72	248	61	1,060	97,876	642,954	1	7	2,450	6,999	5,919	39,457
28	67	295	291	3,974	124,845	815,438	2,284	14,157	2,207	8,076	8,590	57,930
29	65	179	125	1,637	35,062	231,101	7,531	47,089	6,583	22,984	7,236	50,376
30	64	246	101	1,318	34,460	220,690	8,922	54,556	22,328	79,598	9,684	65,547
31	67	369	94	1,388	45,770	296,064	12,745	81,263	110,585	397,392	39,099	263,992
32	57	309	38	644	29,370	188,862	6,246	40,264	101,622	366,792	40,336	268,942
33	48	205	9	160	18,905	120,219	3,423	23,563	68,415	230,457	22,108	154,492
34	24	79	0	0	8,166	50,431	2,734	19,298	24,410	83,687	7,623	54,533
36	18	54	1	20	5,722	37,674	2,365	17,943	0	0	1,373	9,261
37	41	141	0	0	9,145	60,126	14,854	130,451	0	0	1,089	7,391
38	20	38	0	0	3,276	19,843	1,153	9,038	0	0	216	1,217
39	9	25	0	0	1,708	10,003	397	2,518	0	0	37	194
40	7	7	1	22	200	1,168	237	1,654	0	0	3	21
Total	78	2,748	1,005	14,300	591,982	3,867,089	62,892	441,801	338,684	1,196,292	151,351	1,026,053

-Continued-

Table 14. (page 2 of 2)

Catch Week	Permits	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
Beach Seine												
24	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-
All Gears												
24	53	130	150	2,765	39,166	265,976	0	0	971	2,105	3,603	22,496
25	349	1,598	3,661	62,642	922,430	5,119,109	2	16	277,450	763,821	353,821	2,227,241
26	300	805	986	18,919	776,467	4,313,177	11	68	341,723	898,784	420,555	2,526,890
28	124	357	491	6,160	143,327	923,901	5,485	32,954	21,297	63,026	16,153	101,585
29	154	333	519	6,804	67,353	436,926	16,353	96,789	74,427	242,432	19,558	128,252
30	195	570	1,012	13,638	96,141	595,560	114,410	675,479	621,522	1,784,835	78,638	520,078
31	213	808	728	9,813	106,023	653,069	83,473	494,392	2,907,075	9,083,326	150,857	995,191
32	169	724	321	4,982	71,371	431,789	32,660	200,949	3,641,234	11,589,145	182,137	1,193,335
33	154	611	41	744	54,398	329,228	29,753	179,251	2,298,912	7,522,229	220,263	1,520,461
34	89	226	3	74	15,420	92,542	14,570	90,716	423,008	1,395,661	120,775	829,963
36	18	54	1	20	5,722	37,674	2,365	17,943	0	0	1,373	9,261
37	48	149	0	0	9,150	60,154	16,185	142,894	0	0	14,554	88,203
38	20	38	0	0	3,276	19,843	1,153	9,038	0	0	216	1,217
39	9	25	0	0	1,708	10,003	397	2,518	0	0	37	194
40	7	7	1	22	200	1,168	237	1,654	0	0	3	21
Total	370	6,435	7,914	126,583	2,312,152	13,290,119	317,054	1,944,661	10,607,619	33,345,364	1,582,543	10,164,388

Table 15. Ikatan Peninsula to Cape Lazaref commercial salmon catch by statistical week and species, June and post-June, 1991.

Stat Week	Calendar Date	No. Permits Purse Seine	Drift-net	Set-net	Number of Salmon Chinook	Sockeye	Coho	Pink	Chum	Total
25	06/14-06/20	29	107	12	870	206,297	0	64,072	100,999	372,238
26	06/21-06/27	50	87	10	292	256,377	1	142,924	83,257	482,851
28	07/05-07/11	6	6	5	37	7,220	1,972	5,150	2,143	16,522
29	07/12-07/18	0	8	-	14	1,679	5,627	44	1,146	8,510
30	07/19-07/25	-	29	-	42	8,062	23,895	8,031	10,204	50,234
31	07/26-08/01	-	36	-	19	10,932	27,814	14,149	11,452	64,366
32	08/02-08/08	-	14	-	11	2,882	4,832	7,401	5,649	20,775
33	08/09-08/15	0	8	4	1	1,124	1,419	2,135	3,225	7,904
34	08/16-08/22	0	-	-	-	-	-	-	-	-
37	09/06-09/12	0	-	0	-	-	-	-	-	-
PURSE SEINE					488	206,460	3,985	214,439	73,930	499,302
DRIFT GILLNET					696	261,348	51,215	27,202	134,825	475,286
SET GILLNET					102	26,999	11,006	2,378	10,310	50,795
Totals		62	133	12	1,286	495,184	66,206	244,019	219,371	1,026,066

Table 16. Cape Lutke commercial salmon catch by statistical week and species, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Coho	Pink	Chum	Total
25	06/14-06/20	51	79	0	1,408	410,682	2	144,451	193,816	750,359
26	06/21-06/27	50	60	0	450	326,157	1	147,901	272,035	746,544
PURSE SEINE					1,255	436,976	2	291,641	319,079	1,048,953
DRIFT GILLNET					603	299,863	1	711	146,772	447,950
Totals		65	83	0	1,858	736,839	3	292,352	465,851	1,496,903

Table 17. Estimated age composition of the South Peninsula post-June and North Peninsula sockeye catches, 1991.

Area			Ages 0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
SOUTH PENINSULA (POST-JUNE)																
Southeast Mainland District	2,247	percent	0.0	0.0	1.4	4.3	0.1	0.0	76.4	6.8	0.3	10.8	0.0	0.0	0.0	100
		number	87	87	5,363	16,905	260	0	303,006	26,808	1,097	43,037	0	0	0	396,655
Shumagin Islands Section	2,499	percent	0.1	0.0	3.6	5.4	0.0	0.0	67.4	14.1	0.6	8.8	0.0	0.0	0.0	100
		number	767	0	19,635	29,267	215	0	367,329	76,634	3,487	48,031	0	0	0	545,363
Pavlof Bay	2,994	percent	0.1	0.0	5.1	7.4	0.2	0.0	69.7	6.8	0.3	10.4	0.0	0.0	0.0	100
		number	40	12	1,830	2,666	56	0	25,112	2,465	105	3,759	9	0	0	36,053
Ikatan Peninsula to Cape Lazaref	2,061	percent	0.0	0.0	1.4	5.5	0.0	0.0	68.1	10.3	0.0	14.7	0.0	0.0	0.0	100
		number	68	0	6,954	27,107	0	68	337,215	50,813	41	72,827	0	93	0	495,184
Thin Point Section	242	percent	2.9	0.0	4.1	44.2	0.0	0.0	38.0	6.6	0.4	3.7	0.0	0.0	0.0	100
		number	140	0	201	2,151	0	0	1,850	322	20	181	0	0	0	4,865
SOUTH PENINSULA TOTAL	10,043	percent	0.1	0.0	2.3	5.3	0.0	0.0	70.0	10.6	0.3	11.4	0.0	0.0	0.0	100
		number	1,102	99	33,983	78,096	531	68	1,034,512	157,042	4,750	167,835	9	93	0	1,478,120
NORTH PENINSULA																
Urilia Bay	758	percent	12.8	0.0	25.6	9.1	0.0	0.9	49.5	0.1	0.1	1.8	0.0	0.0	0.0	100
		number	18,759	0	37,520	13,345	0	1,354	72,524	193	193	2,708	0	0	0	146,594
Izembek-Moffet Bay	419	percent	1.4	0.0	1.9	30.1	0.0	0.0	59.9	2.1	0.2	4.3	0.0	0.0	0.0	100
		number	350	0	468	7,368	0	0	14,677	526	59	1,052	0	0	0	24,500
Nelson Lagoon	4,126	percent	0.0	0.1	0.5	7.2	0.0	0.0	58.4	9.1	0.0	24.7	0.0	0.0	0.0	100
		number	116	286	1,309	19,670	33	0	160,406	25,084	0	67,706	0	17	0	274,635
Harbor Point to Cape Seniavin	5,416	percent	0.0	0.0	0.1	8.0	0.0	0.0	24.3	35.7	0.1	31.8	0.0	0.1	0.0	100
		number	282	0	1,003	83,536	433	154	254,448	374,414	621	333,221	183	847	55	1,049,200
Cape Seniavin to Strogonof Point	3,930	percent	0.3	0.0	0.5	11.9	0.0	0.0	46.7	17.2	0.3	22.5	0.0	0.2	0.2	100
		number	2,384	0	4,734	103,339	22	376	404,313	148,992	2,631	194,683	389	1,491	1,504	864,855
NORTH PENINSULA TOTAL	14,649	percent	0.9	0.0	1.9	9.6	0.0	0.1	38.4	23.3	0.1	25.4	0.0	0.1	0.1	100
		number	21,891	286	45,034	227,258	488	1,884	906,368	549,209	3,504	599,370	572	2,355	1,559	2,359,784
ALASKA PENINSULA TOTAL	24,692	percent	0.6	0.0	2.1	8.0	0.0	0.1	50.6	18.4	0.2	20.0	0.0	0.1	0.0	100
		number	22,993	385	79,017	305,354	1,019	1,952	1,940,880	706,251	8,254	767,205	581	2,448	1,559	3,837,904

Table 18. Sockeye salmon daily and cumulative escapement counts through the Orzinski River weir, 1991.

Date		Daily			Cumulative			Daily Percent		Cumulative Percent		
		Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
June	14	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	15	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	16	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	17	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	18	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	19	0	1	1	0	1	1	0.0	0.0	0.0	0.0	0.0
	20	1	0	1	1	1	2	0.0	0.0	0.0	0.0	0.0
	21	1	1	2	2	2	4	0.0	0.0	0.0	0.0	0.0
	22	0	1	1	2	3	5	0.0	0.0	0.0	0.0	0.0
	23	10	4	14	12	7	19	0.0	0.0	0.0	0.0	0.0
	24	0	0	0	12	7	19	0.0	0.0	0.0	0.0	0.0
	25	1	1	2	13	8	21	0.0	0.0	0.0	0.0	0.1
	26	11	5	16	24	13	37	0.0	0.0	0.1	0.0	0.1
	27	276	72	348	300	85	385	0.7	0.2	0.8	0.2	1.0
	28	1	2	3	301	87	388	0.0	0.0	0.8	0.2	1.0
	29	1,772	67	1,839	2,073	154	2,227	4.4	0.2	5.2	0.4	5.6
	30	602	36	638	2,675	190	2,865	1.5	0.1	6.7	0.5	7.2
July	1	1,034	33	1,067	3,709	223	3,932	2.6	0.1	9.3	0.6	9.8
	2	359	8	367	4,068	231	4,299	0.9	0.0	10.2	0.6	10.7
	3	1,070	10	1,080	5,138	241	5,379	2.7	0.0	12.8	0.6	13.4
	4	9,802	50	9,852	14,940	291	15,231	24.5	0.1	37.4	0.7	38.1
	5	2,818	10	2,828	17,758	301	18,059	7.0	0.0	44.4	0.8	45.1
	6	1,832	13	1,845	19,590	314	19,904	4.6	0.0	49.0	0.8	49.8
	7	948	0	948	20,538	314	20,852	2.4	0.0	51.3	0.8	52.1
	8	378	2	380	20,916	316	21,232	0.9	0.0	52.3	0.8	53.1
	9	1,274	1	1,275	22,190	317	22,507	3.2	0.0	55.5	0.8	56.3
	10	1,348	11	1,359	23,538	328	23,866	3.4	0.0	58.8	0.8	59.7
	11	1,490	21	1,511	25,028	349	25,377	3.7	0.1	62.6	0.9	63.4
	12	2,788	23	2,811	27,816	372	28,188	7.0	0.1	69.5	0.9	70.5
	13	2,049	26	2,075	29,865	398	30,263	5.1	0.1	74.7	1.0	75.7
	14	454	7	461	30,319	405	30,724	1.1	0.0	75.8	1.0	76.8
	15	767	19	786	31,086	424	31;510	1.9	0.0	77.7	1.1	78.8
	16	453	5	458	31,539	429	31,968	1.1	0.0	78.8	1.1	79.9

-Continued-

Table 18. (page 2 of 2)

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
17	1,162	23	1,185	32,701	452	33,153	2.9	0.1	81.8	1.1	82.9
18	1,113	15	1,128	33,814	467	34,281	2.8	0.0	84.5	1.2	85.7
19	910	28	938	34,724	495	35,219	2.3	0.1	86.8	1.2	88.0
Post July 19[a]											
	4,715	66	4,781	39,439	561	40,000	11.8	0.2	98.6	1.4	100.0
Total	39,439	561	40,000	39,439	561	40,000	98.6	1.4	98.6	1.4	100.0

[a] Post July 19 data reflect aerial survey estimates.

Table 19. Estimated age composition of sockeye escapements from the Alaska Peninsula Management Area, 1991.

Area	Ages 0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	3.3	3.2	Other[a]	TOTAL
SOUTH PENINSULA (POST-JUNE)												
Orzinski River												
Number	192	11,718	378	15,382	10,862	0	1,128	0	0	0	0	40,000
Percent	0.5	29.3	0.9	38.5	27.2	0.0	2.8	0.0	0.0	0.0	0.0	100.0
SOUTH PENINSULA TOTAL												
Number	192	11,718	378	15,382	10,862	0	1,128	0	0	0	0	40,000
Percent	0.5	29.3	0.9	38.5	27.2	0.0	2.8	0.0	0.0	0.0	0.0	100.0
NORTH PENINSULA												
Nelson River												
Number	222	49,517	3,915	27,395	144,133	0	39,851	0	0	0	3,367	268,400
Percent	0.1	18.4	1.5	10.2	53.7	0.0	14.8	0.0	0.0	0.0	1.3	100.0
Bear Lake												
Number	106	37,050	43,034	111,755	366,361	1,624	40,887	933	10	353	3,888	606,000
Percent	0.0	6.1	7.1	18.4	60.5	0.3	6.7	0.2	0.0	0.1	0.7	100.0
Ilnik River												
Number	6,894	1,054	311	122,572	108	316	3,122	0	0	0	622	135,000
Percent	5.1	0.8	0.2	90.8	0.1	0.2	2.3	0.0	0.0	0.0	0.4	100.0
NORTH PENINSULA TOTAL												
Number	7,414	87,621	134,881	261,722	510,602	1,940	83,860	933	10	353	7,877	1,009,400
Percent	0.7	8.7	13.4	25.9	50.6	0.2	8.3	0.1	0.0	0.0	0.8	100.0
ALASKA PENINSULA TOTAL												
Number	7,414	99,339	47,638	277,104	521,464	1,940	84,988	933	10	353	7,877	1,049,400
Percent	0.7	9.5	4.5	26.4	49.7	0.2	8.1	0.1	0.0	0.0	0.8	100.0

[a] Other ages include: 1.1, 0.2, 0.4, 3.1

Table 20. Estimated sex composition of sockeye salmon escapement from Orzinski River by statistical week, 1991.

Week	Calendar Dates	Sample			Escapement				
					Percent				
		Females	Males	Total	Females	Males	Females	Males	Total
25	(6/14-6/20)	0	0	0	50.0	50.0	1	1	2
26	(6/21-6/27)	0	0	0	56.3	43.7	210	163	373
27	(6/28-7/04)	72	56	128	55.6	44.4	8,263	6,593	14,856
28	(7/05-7/11)	188	163	351	54.0	46.0	5,475	4,671	10,146
29	(7/12-7/18)	125	115	240	52.4	47.6	3,454	3,137	6,591
30	(7/19-7/25)	0	0	0	52.1	47.9	4,183	3,849	8,032
Total		385	334	719	54.0	46.0	21,587	18,413	40,000

Table 21. Lengths of sockeye in escapement samples from Orzinski River by age and sex, 28 June through 18 July, 1991.

	Ages								
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Females									
Mean Length (mm)	0	0	580	492	0	561	504	557	525
SE	-	-	-	3	-	3	2	11	2
Range	0-0	0-0	580-580	420-560	0-0	430-635	435-585	505-615	420-635
Sample Size	0	0	1	82	0	129	103	9	324
Males									
Mean Length (mm)	468	350	600	474	376	584	498	573	520
SE	38	-	-	4	5	3	5	13	4
Range	430-545	350-350	600-600	420-585	360-390	460-630	425-590	545-605	350-630
Sample Size	3	1	1	98	5	103	61	4	276
All Fish									
Mean Length (mm)	468	350	590	482	376	571	502	562	523
SE	38	-	10	3	5	2	2	9	2
Range	430-545	350-350	580-600	420-585	360-390	430-635	425-590	505-615	350-635
Sample Size	3	1	2	181	5	232	164	13	601

Table 22. Estimated age composition of chum salmon catches from the Alaska Peninsula Management Area, 1991.

Area	Sample Size		Ages 0.2	0.3	0.4	0.5	0.6	Total
SOUTH PENINSULA (Post-June)								
Southeast Mainland District	1,613	percent	2.1	45.3	51.8	0.8	0.0	100
		number	4,010	88,328	101,177	1,635	0	195,150
Shumagin Islands Section	1,352	percent	5.0	41.4	52.9	0.8	0.0	100
		number	15,678	129,963	166,151	2,477	0	314,269
Morzhovoi Bay	303	percent	5.3	59.7	35	0.0	0.0	100
		number	1,322	14,948	8,753	0	0	25,023
Pavlof Bay	2,005	percent	20.7	41.3	37.4	0.6	0.0	100
		number	22,775	45,427	41,124	703	0	110,030
Ikatan Peninsula to Cape Lazaref	1,664	percent	1.5	51.6	46.0	0.9	0.0	100
		number	3,397	113,119	100,918	1,939	0	219,371
South Unimak	1,664	percent	1.4	51.0	46.6	0.9	0.0	100
		number	10,056	360,522	329,406	6,374	0	706,357
Belkofski Bay	604	percent	5.2	44.5	50.3	0.0	0.0	100
		number	2,947	25,342	28,671	0	0	56,962
Canoe Bay	1,175	percent	8.4	28	62.6	0.9	0.0	100
		number	3,277	10,882	24,302	345	0	38,806
SOUTH PENINSULA TOTAL	10,380	percent	3.8	47.3	48.1	0.8	0.0	100
		number	63,462	788,531	800,502	13,473	0	1,665,968

-Continued-

Table 22. (page 2 of 2)

Area	Sample Size		Ages 0.2	0.3	0.4	0.5	0.6	Total
NORTH PENINSULA								
Izembek-Moffet Bay	1,074	percent	1.2	54.6	43.7	0.4	0.1	100
		number	639	28,108	22,526	182	59	51,516
Nelson Lagoon	1,136	percent	2.2	84.1	13.5	0.2	0.0	100
		number	159	6,204	995	15	0	7,374
Harbor Point to Cape Seniavin	2,504	percent	1.9	43.5	54.2	0.4	0.0	100
		number	1,596	36,377	45,337	369	0	83,679
Cape Seniavin to Strogonof Point	1,076	percent	2.5	49.9	47.4	0.1	0.0	100
		number	528	10,387	9,871	22	0	20,807
NORTH PENINSULA TOTAL	5,790	percent	1.8	49.6	48.2	0.4	0.0	100
		number	2,922	81,076	78,729	588	59	163,376
ALASKA PENINSULA TOTAL	16,170	percent	3.6	47.5	48.1	0.8	0.0	100
		number	66,384	869,607	879,231	14,061	59	1,829,344

Table 23. Estimated age composition of coho salmon catches from the Alaska Peninsula Management Area, 1991.

Species / Area			Ages 0.1	1.1	2.1	3.1	4.1	Total
Coho								
Nelson Lagoon	565	percent	0.0	7.6	85.6	6.6	0.2	100
		number	0	5,063	56,783	4,556	118	66,520
Harbor Point to Cape Seniavin	541	percent	0.2	24.4	65.7	9.4	0.4	100
		number	68	8,912	23,968	3,444	135	36,527
Total	1,106	percent	0.1	13.6	78.4	7.8	0.2	100
		number	68	13,975	80,751	8,000	253	103,047

Table 24. Aleutian Islands Management Area commercial salmon catch by statistical week and species, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Pink	Chum	Coho	Total
29	07/12-07/18	-[a]	0	0	0	-	0	0	0	
Purse seine Totals		0 0	0 0	0 0	0 0	- -	0 0	0 0	0 0	-

[a] Denotes less than three permits were fished.

Table 25. North Peninsula commercial salmon catch by statistical week, gear type, and species, 1991.

Catch Week	Permits	Landings	Chinook		Sockeye		Coho		Pink		Chum	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
Purse Seine												
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	3	12	0	0	17,930	100,073	0	0	0	0	0	0
26	7	18	0	0	15,418	86,175	0	0	0	0	200	1,714
27	7	12	0	0	20,775	117,869	0	0	0	0	865	6,015
28	12	37	1	8	51,539	289,902	0	0	79	249	7,299	48,550
29	10	14	0	0	3,239	17,750	0	0	25	90	11,058	70,364
30	6	20	1	24	12,991	74,889	0	0	3,275	824	18,465	127,891
31	6	14	0	0	12,357	71,029	0	0	2	7	25,688	175,495
32	4	12	0	0	2,871	17,997	0	0	0	0	8,860	65,298
34	-	-	-	-	-	-	-	-	-	-	-	-
37	4	10	0	0	0	0	18,425	178,909	0	0	0	0
Total	15	153	2	32	137,568	778,180	18,435	178,980	3,381	11,640	72,535	496,169
Drift Gillnet												
22	-	-	-	-	-	-	-	-	-	-	-	-
23	10	19	451	8,387	267	1,505	0	0	0	0	24	144
24	36	64	1,770	30,521	3,933	21,813	0	0	0	0	64	454
25	27	72	2,001	35,254	24,695	137,794	0	0	0	0	5	33
26	91	229	1,575	25,606	198,284	1,064,352	0	0	0	0	498	3,151
27	24	32	181	2,236	16,007	90,645	28	162	0	0	773	5,182
28	153	354	113	2,148	330,979	1,787,734	1	7	13	37	6,114	38,753
29	162	792	126	2,351	442,702	2,473,853	2,049	11,865	25	89	18,218	116,206
30	153	739	88	1,524	244,863	1,341,636	686	4,371	56	187	28,964	190,072
31	115	492	39	636	123,895	660,939	734	4,460	160	554	22,647	145,690
32	139	568	32	447	95,929	497,138	2,240	14,673	231	778	14,940	96,554
33	152	671	21	379	111,972	578,437	13,531	90,643	93	342	4,438	28,085
34	169	747	13	277	140,996	731,208	41,051	320,843	92	326	3,505	22,921
35	118	428	5	91	149,832	777,458	27,491	210,553	34	125	1,206	7,564
36	97	399	2	50	82,791	413,930	36,196	295,303	10	34	308	1,989
37	68	205	1	20	34,254	167,903	17,934	155,633	0	0	53	325
38	17	42	0	0	5,273	25,103	1,570	13,263	0	0	10	60
Total	248	5,855	6,431	110,147	2,006,677	10,771,478	143,511	1,121,776	714	2,472	101,772	657,213
Set Gillnet												
23	15	40	339	4,615	1,289	6,503	0	0	0	0	0	0
24	28	73	991	14,419	6,294	36,092	0	0	0	0	76	602
25	26	92	1,093	17,963	18,127	103,821	0	0	0	0	543	3,280
26	29	106	400	6,759	37,317	214,547	0	0	0	0	1,470	8,994
27	23	26	38	674	7,003	39,209	0	0	20	79	260	1,586
28	33	146	40	674	74,311	419,692	0	0	1	2	2,216	13,711

-Continued-

Table 25. (page 2 of 2)

	Catch Week	Permits	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
	29	32	147	18	317	40,648	224,595	1	5	4	14	2,826	17,910
	30	23	135	5	115	31,849	163,266	20	130	15	45	3,314	21,571
	31	21	103	7	125	15,698	78,951	42	256	48	156	3,092	20,375
	32	18	66	5	82	7,631	38,258	281	1,783	27	94	2,043	13,476
	33	28	82	0	0	2,996	17,159	3,672	25,212	25	77	930	5,846
	34	31	97	0	0	1,192	6,757	9,212	70,675	5	16	165	1,083
	35	27	70	1	9	1,331	8,666	12,996	99,483	9	31	35	221
	36	36	94	0	0	1,102	8,647	18,111	149,853	0	0	6	34
	37	24	80	0	0	153	1,228	11,993	107,894	0	0	0	0
	Total	54	1,357	2,937	45,752	246,941	1,367,391	56,328	455,291	154	514	16,976	108,689
All Gears													
	22	-	-	-	-	-	-	-	-	-	-	-	-
	23	26	60	790	13,002	1,581	8,144	0	0	0	0	24	144
	24	66	139	2,761	44,940	10,647	60,245	0	0	0	0	140	1,056
	25	56	176	3,094	53,217	60,752	341,688	0	0	0	0	548	3,313
	26	127	353	1,975	32,365	251,019	1,365,074	0	0	0	0	2,168	13,859
	27	54	70	219	2,910	43,785	247,723	28	162	20	79	1,898	12,783
	28	198	537	154	2,830	456,829	2,497,328	1	7	93	288	15,629	101,014
	29	204	953	144	2,668	486,589	2,716,198	2,050	11,870	54	193	32,102	204,480
	30	182	894	94	1,663	289,703	1,579,791	706	4,501	3,346	1,056	50,743	339,534
	31	142	609	46	761	151,950	810,919	775	4,716	210	717	51,427	341,560
	32	161	646	37	529	106,431	553,393	2,521	16,456	258	872	25,843	175,328
	33	180	753	21	379	114,968	595,596	17,203	115,855	118	419	5,368	33,931
	34	204	854	13	277	142,188	737,965	68,688	570,427	97	342	3,670	24,004
	35	145	498	6	100	151,163	786,124	40,487	310,036	43	156	1,241	7,785
	36	133	493	2	50	83,893	422,577	54,307	445,156	10	34	314	2,023
	37	92	285	1	20	34,407	169,131	29,927	263,527	0	0	53	325
	38	17	42	0	0	5,273	25,103	1,570	13,263	0	0	10	60
	Total	317	7,364	9,370	155,931	2,391,183	12,917,029	218,264	1,755,976	4,249	4,156	191,183	1,261,229

Table 26. Nelson Lagoon commercial salmon catch by statistical week and species, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Coho	Pink	Chum	Total
23	05/31-06/06	0	3	14	433	598	0	0	0	1,031
24	06/07-06/13	0	7	21	1,216	4,657	0	0	0	5,873
25	06/14-06/20	0	5	21	1,115	21,696	0	0	0	22,811
26	06/21-06/27	0	10	23	530	31,775	0	0	0	32,305
27	06/28-07/04	0	7	20	55	6,268	0	0	0	6,323
28	07/05-07/11	0	11	25	67	77,933	0	0	20	78,020
29	07/12-07/18	0	11	22	19	50,848	901	1	284	52,053
30	07/19-07/25	0	9	19	8	43,387	22	5	1,617	45,039
31	07/26-08/01	0	10	17	3	19,923	29	4	2,498	22,457
32	08/02-08/08	0	7	16	2	8,818	324	9	1,839	10,992
33	08/09-08/15	0	9	17	0	3,292	1,676	2	727	5,697
34	08/16-08/22	0	11	19	0	1,526	6,921	0	311	8,758
35	08/23-08/29	0	11	21	2	1,808	15,147	11	65	17,033
36	08/30-09/05	0	13	23	0	1,051	20,406	0	10	21,467
37	09/06-09/12	0	15	21	0	155	21,994	0	3	22,152
DRIFT GILLNET					1,039	85,133	26,064	12	2,232	114,480
SET GILLNET					2,411	188,602	41,356	20	5,142	237,531
Totals		0	19	30	3,450	273,735	67,420	32	7,374	352,011

Table 27. Harbor Point to Cape Seniavin commercial salmon catch by statistical week and species, 1991.

Stat Week	Calendar Date	No. Permits: Purse Seine	Drift-net	Set-net	Number of Salmon: Chinook	Sockeye	Coho	Pink	Chum	Total
22	05/24-05/30	0	-	0	13	5	0	0	5	23
23	05/31-06/06	0	7	0	356	266	0	0	24	646
24	06/07-06/13	0	6	-	219	1,100	0	0	117	1,436
25	06/14-06/20	0	4	-	156	13,658	0	0	543	14,357
26	06/21-06/27	0	59	-	903	119,433	0	0	1,791	122,127
28	07/05-07/11	6	61	-	22	92,848	0	7	5,247	98,124
29	07/12-07/18	-	85	-	52	107,120	30	13	15,087	122,302
30	07/19-07/25	0	95	-	38	76,809	92	42	21,684	98,665
31	07/26-08/01	0	87	3	28	60,535	223	172	18,267	79,225
32	08/02-08/08	0	115	-	22	73,244	600	160	12,406	86,432
33	08/09-08/15	0	108	-	19	103,235	1,620	110	4,345	109,329
34	08/16-08/22	0	105	-	11	133,131	6,717	97	2,662	142,618
35	08/23-08/29	0	83	0	4	146,739	11,392	32	1,137	159,304
36	08/30-09/05	0	52	0	2	81,552	10,919	10	304	92,787
37	09/06-09/12	0	34	0	1	34,252	3,364	0	50	37,667
38	09/13-09/19	0	17	0	0	5,273	1,570	0	10	6,853
PURSE SEINE					0	10,823	0	0	196	11,019
DRIFT GILLNET					1,644	1,033,842	36,413	535	72,595	1,145,029
SET GILLNET					202	4,535	114	108	10,888	15,847
Totals		0	161	3	1,846	1,049,200	36,527	643	83,679	1,171,895

Table 28. Estimated age composition of chinook salmon catches from the Alaska Peninsula Management Area, 1991.

Species / Area			Ages 1.1	1.2	1.3	2.2	1.4	1.5	Total
Chinook									
Nelson Lagoon	1,397	percent	1.4	20.8	30.1	0.1	33.0	14.6	100
		number	49	719	1,037	2	1,138	504	3,450
Harbor Point to Cape Seniavin	213	percent	2.3	27.7	13.2	0.0	46.0	10.8	100
		number	43	511	243	0	849	199	1,846
		percent	1.7	23.2	24.2	0.0	37.5	13.3	100
Total	1,610	number	92	1,230	1,280	2	1,987	703	5,296

Table 29. Cape Seniavin to Strogonof Point commercial salmon catch by statistical week and species, 1991.

Stat Week	Calendar Date	No. Permits Purse Seine	Drift-net	Set-net	Number of Salmon Chinook	Sockeye	Coho	Pink	Chum	Total
24	06/07-06/13	0	0	-	1	969	0	0	0	970
25	06/14-06/20	0	0	-	0	2,090	0	0	0	2,090
26	06/21-06/27	0	33	-	59	57,994	0	0	0	58,053
28	07/05-07/11	0	104	-	59	230,611	1	7	2,810	233,488
29	07/12-07/18	0	122	4	69	321,908	1,105	12	4,997	328,091
30	07/19-07/25	0	92	-	43	152,331	570	24	7,257	160,225
31	07/26-08/01	0	53	-	15	58,960	521	32	4,589	64,117
32	08/02-08/08	0	37	0	9	20,384	318	49	928	21,688
33	08/09-08/15	0	24	-	0	8,290	820	6	136	9,252
34	08/16-08/22	0	9	-	0	7,412	1,508	0	51	8,971
35	08/23-08/29	0	8	-	0	2,616	779	0	39	3,434
36	08/30-09/05	0	3	-	0	1,290	1,830	0	0	3,120
DRIFT GILLNET					253	838,163	3,961	125	20,711	863,213
SET GILLNET					2	26,692	3,491	5	96	30,286
Totals		0	136	5	255	864,855	7,452	130	20,807	893,499

[a] Denotes less than three permits were fished.

Table 30. Sockeye salmon daily and cumulative escapement counts through the Nelson River weir, 1991.

Date		Daily			Cumulative			Daily Percent		Cumulative Percent		
		Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
June	8	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	9	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
	10	3	0	3	3	0	3	0.0	0.0	0.0	0.0	0.0
	11	2	0	2	5	0	5	0.0	0.0	0.0	0.0	0.0
	12	0	0	0	5	0	5	0.0	0.0	0.0	0.0	0.0
	13	0	0	0	5	0	5	0.0	0.0	0.0	0.0	0.0
	14	0	0	0	5	0	5	0.0	0.0	0.0	0.0	0.0
	15	1	0	1	6	0	6	0.0	0.0	0.0	0.0	0.0
	16	0	0	0	6	0	6	0.0	0.0	0.0	0.0	0.0
	17	0	0	0	6	0	6	0.0	0.0	0.0	0.0	0.0
	18	0	0	0	6	0	6	0.0	0.0	0.0	0.0	0.0
	19	89	4	93	95	4	99	0.0	0.0	0.0	0.0	0.0
	20	0	0	0	95	4	99	0.0	0.0	0.0	0.0	0.0
	21	735	65	800	830	69	899	0.3	0.0	0.3	0.0	0.3
	22	88	7	95	918	76	994	0.0	0.0	0.3	0.0	0.4
	23	7,495	735	8,230	8,413	811	9,224	2.8	0.3	3.1	0.3	3.4
	24	2,857	181	3,038	11,270	992	12,262	1.1	0.1	4.2	0.4	4.6
	25	3,343	115	3,458	14,613	1,107	15,720	1.2	0.0	5.4	0.4	5.9
	26	1,568	81	1,649	16,181	1,188	17,369	0.6	0.0	6.0	0.4	6.5
	27	2,448	164	2,612	18,629	1,352	19,981	0.9	0.1	6.9	0.5	7.4
	28	1,358	78	1,436	19,987	1,430	21,417	0.5	0.0	7.4	0.5	8.0
	29	3,406	226	3,632	23,393	1,656	25,049	1.3	0.1	8.7	0.6	9.3
	30	2,980	255	3,235	26,373	1,911	28,284	1.1	0.1	9.8	0.7	10.5
July	1	3,418	147	3,565	29,791	2,058	31,849	1.3	0.1	11.1	0.8	11.9
	2	2,441	141	2,582	32,232	2,199	34,431	0.9	0.1	12.0	0.8	12.8
	3	3,240	212	3,452	35,472	2,411	37,883	1.2	0.1	13.2	0.9	14.1
	4	8,292	401	8,693	43,764	2,812	46,576	3.1	0.1	16.3	1.0	17.4
	5	18,794	687	19,481	62,558	3,499	66,057	7.0	0.3	23.3	1.3	24.6
	6	37,421	1,191	38,612	99,979	4,690	104,669	13.9	0.4	37.3	1.7	39.0
	7	21,679	919	22,598	121,658	5,609	127,267	8.1	0.3	45.3	2.1	47.4
	8	8,330	369	8,699	129,988	5,978	135,966	3.1	0.1	48.4	2.2	50.7
	9	12,206	314	12,520	142,194	6,292	148,486	4.5	0.1	53.0	2.3	55.3
	10	7,479	208	7,687	149,673	6,500	156,173	2.8	0.1	55.8	2.4	58.2

-Continued-

Table 30. (page 2 of 2)

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
July 11	12,389	299	12,688	162,062	6,799	168,861	4.6	0.1	60.4	2.5	62.9
12	10,726	454	11,180	172,788	7,253	180,041	4.0	0.2	64.4	2.7	67.1
13	4,241	232	4,473	177,029	7,485	184,514	1.6	0.1	66.0	2.8	68.7
14	9,168	375	9,543	186,197	7,860	194,057	3.4	0.1	69.4	2.9	72.3
15	8,998	254	9,252	195,195	8,114	203,309	3.4	0.1	72.7	3.0	75.7
16	6,047	215	6,262	201,242	8,329	209,571	2.3	0.1	75.0	3.1	78.1
17	3,917	175	4,092	205,159	8,504	213,663	1.5	0.1	76.4	3.2	79.6
18	5,364	251	5,615	210,523	8,755	219,278	2.0	0.1	78.4	3.3	81.7
19	5,278	318	5,596	215,801	9,073	224,874	2.0	0.1	80.4	3.4	83.8
20	5,023	240	5,263	220,824	9,313	230,137	1.9	0.1	82.3	3.5	85.7
21	1,256	94	1,350	222,080	9,407	231,487	0.5	0.0	82.7	3.5	86.2
22	4,470	177	4,647	226,550	9,584	236,134	1.7	0.1	84.4	3.6	88.0
23	4,006	94	4,100	230,556	9,678	240,234	1.5	0.0	85.9	3.6	89.5
24	3,971	120	4,091	234,527	9,798	244,325	1.5	0.0	87.4	3.7	91.0
25	2,375	61	2,436	236,902	9,859	246,761	0.9	0.0	88.3	3.7	91.9
26	1,503	31	1,534	238,405	9,890	248,295	0.6	0.0	88.8	3.7	92.5
27	1,697	41	1,738	240,102	9,931	250,033	0.6	0.0	89.5	3.7	93.2
28	1,274	37	1,311	241,376	9,968	251,344	0.5	0.0	89.9	3.7	93.6
29	1,188	23	1,211	242,564	9,991	252,555	0.4	0.0	90.4	3.7	94.1
30	1,678	72	1,750	244,242	10,063	254,305	0.6	0.0	91.0	3.7	94.7
31	936	39	975	245,178	10,102	255,280	0.3	0.0	91.3	3.8	95.1
August 1	1,005	38	1,043	246,183	10,140	256,323	0.4	0.0	91.7	3.8	95.5
Post August 1	11,712	365	12,077	257,895	10,505	268,400	4.4	0.1	96.1	3.9	100.0
Total	257,895	10,505	268,400	257,895	10,505	268,400	96.1	3.9	96.1	3.9	100.0

Table 31. Sockeye salmon daily and cumulative escapement counts through the Bear River weir, 1991.

Date		Daily			Cumulative			Daily Percent		Cumulative	
		Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks
May	31	1	0	1	1	0	1	0.0	0.0	0.0	0.0
June	1	0	0	0	1	0	1	0.0	0.0	0.0	0.0
	2	0	0	0	1	0	1	0.0	0.0	0.0	0.0
	3	0	0	0	1	0	1	0.0	0.0	0.0	0.0
	4	14	0	14	15	0	15	0.0	0.0	0.0	0.0
	5	23	0	23	38	0	38	0.0	0.0	0.0	0.0
	6	72	0	72	110	0	110	0.0	0.0	0.0	0.0
	7	162	0	162	272	0	272	0.0	0.0	0.0	0.0
	8	173	2	175	445	2	447	0.0	0.0	0.1	0.0
	9	4	0	4	449	2	451	0.0	0.0	0.1	0.0
	10	19	0	19	468	2	470	0.0	0.0	0.1	0.0
	11	122	0	122	590	2	592	0.0	0.0	0.1	0.0
	12	174	2	176	764	4	768	0.0	0.0	0.1	0.0
	13	335	2	337	1,099	6	1,105	0.1	0.0	0.2	0.0
	14	475	1	476	1,574	7	1,581	0.1	0.0	0.3	0.0
	15	668	5	673	2,242	12	2,254	0.1	0.0	0.4	0.0
	16	835	7	842	3,077	19	3,096	0.1	0.0	0.5	0.0
	17	522	13	535	3,599	32	3,631	0.1	0.0	0.6	0.0
	18	1,428	35	1,463	5,027	67	5,094	0.2	0.0	0.8	0.0
	19	3,858	103	3,961	8,885	170	9,055	0.6	0.0	1.5	0.0
	20	12,636	277	12,913	21,521	447	21,968	2.1	0.0	3.6	0.1
	21	5,239	72	5,311	26,760	519	27,279	0.9	0.0	4.4	0.1
	22	2,498	30	2,528	29,258	549	29,807	0.4	0.0	4.8	0.1
	23	1,073	11	1,084	30,331	560	30,891	0.2	0.0	5.0	0.1
	24	2,534	35	2,569	32,865	595	33,460	0.4	0.0	5.4	0.1
	25	3,548	55	3,603	36,413	650	37,063	0.6	0.0	6.0	0.1
	26	4,566	103	4,669	40,979	753	41,732	0.8	0.0	6.8	0.1
	27	4,150	88	4,238	45,129	841	45,970	0.7	0.0	7.4	0.1
	28	6,470	111	6,581	51,599	952	52,551	1.1	0.0	8.5	0.2
	29	3,619	120	3,739	55,218	1,072	56,290	0.6	0.0	9.1	0.2
	30	1,993	59	2,052	57,211	1,131	58,342	0.3	0.0	9.4	0.2
July	1	332	34	366	57,543	1,165	58,708	0.1	0.0	9.5	0.2
	2	484	46	530	58,027	1,211	59,238	0.1	0.0	9.6	0.2
	3	24,800	284	25,084	82,827	1,495	84,322	4.1	0.0	13.7	0.2
	4	47,087	493	47,580	129,914	1,988	131,902	7.8	0.1	21.4	0.3
	5	48,711	423	49,134	178,625	2,411	181,036	8.0	0.1	29.5	0.4

-Continued-

Table 31. (page 2 of 3)

Date	Daily			Cumulative			Daily Percent		Cumulative	
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks
July 6	25,914	358	26,272	204,539	2,769	207,308	4.3	0.1	33.8	0.5
7	23,876	341	24,217	228,415	3,110	231,525	3.9	0.1	37.7	0.5
8	15,871	301	16,172	244,286	3,411	247,697	2.6	0.0	40.3	0.6
9	17,503	368	17,871	261,789	3,779	265,568	2.9	0.1	43.2	0.6
10	14,853	235	15,088	276,642	4,014	280,656	2.5	0.0	45.7	0.7
11	11,485	404	11,889	288,127	4,418	292,545	1.9	0.1	47.5	0.7
12	10,378	492	10,870	298,505	4,910	303,415	1.7	0.1	49.3	0.8
13	5,756	257	6,013	304,261	5,167	309,428	0.9	0.0	50.2	0.9
14	9,241	222	9,463	313,502	5,389	318,891	1.5	0.0	51.7	0.9
15	7,642	273	7,915	321,144	5,662	326,806	1.3	0.0	53.0	0.9
16	2,827	46	2,873	323,971	5,708	329,679	0.5	0.0	53.5	0.9
17	4,342	119	4,461	328,313	5,827	334,140	0.7	0.0	54.2	1.0
18	8,922	271	9,193	337,235	6,098	343,333	1.5	0.0	55.6	1.0
19	8,842	498	9,340	346,077	6,596	352,673	1.5	0.1	57.1	1.1
20	6,715	530	7,245	352,792	7,126	359,918	1.1	0.1	58.2	1.2
21	7,080	326	7,406	359,872	7,452	367,324	1.2	0.1	59.4	1.2
22	9,447	622	10,069	369,319	8,074	377,393	1.6	0.1	60.9	1.3
23	9,148	530	9,678	378,467	8,604	387,071	1.5	0.1	62.5	1.4
24	8,257	295	8,552	386,724	8,899	395,623	1.4	0.0	63.8	1.5
25	6,222	200	6,422	392,946	9,099	402,045	1.0	0.0	64.8	1.5
26	3,738	191	3,929	396,684	9,290	405,974	0.6	0.0	65.5	1.5
27	5,496	260	5,756	402,180	9,550	411,730	0.9	0.0	66.4	1.6
28	4,106	331	4,437	406,286	9,881	416,167	0.7	0.1	67.0	1.6
29	6,314	465	6,779	412,600	10,346	422,946	1.0	0.1	68.1	1.7
30	5,171	353	5,524	417,771	10,699	428,470	0.9	0.1	68.9	1.8
31	3,461	156	3,617	421,232	10,855	432,087	0.6	0.0	69.5	1.8
August 1	4,745	247	4,992	425,977	11,102	437,079	0.8	0.0	70.3	1.8
2	4,378	237	4,615	430,355	11,339	441,694	0.7	0.0	71.0	1.9
3	5,366	279	5,645	435,721	11,618	447,339	0.9	0.0	71.9	1.9
4	3,106	101	3,207	438,827	11,719	450,546	0.5	0.0	72.4	1.9
5	6,590	323	6,913	445,417	12,042	457,459	1.1	0.1	73.5	2.0
6	6,189	204	6,393	451,606	12,246	463,852	1.0	0.0	74.5	2.0
7	5,076	179	5,255	456,682	12,425	469,107	0.8	0.0	75.4	2.1
8	2,984	269	3,253	459,666	12,694	472,360	0.5	0.0	75.9	2.1
9	3,275	271	3,546	462,941	12,965	475,906	0.5	0.0	76.4	2.1

-Continued-

Table 31. (page 3 of 3)

Date	Daily			Cumulative			Daily Percent		Cumulative	
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks
10	3,199	301	3,500	466,140	13,266	479,406	0.5	0.0	76.9	2.2
11	1,972	186	2,158	468,112	13,452	481,564	0.3	0.0	77.2	2.2
12	4,560	439	4,999	472,672	13,891	486,563	0.8	0.1	78.0	2.3
13	6,307	507	6,814	478,979	14,398	493,377	1.0	0.1	79.0	2.4
14	4,287	402	4,689	483,266	14,800	498,066	0.7	0.1	79.7	2.4
15	3,628	329	3,957	486,894	15,129	502,023	0.6	0.1	80.3	2.5
16	1,452	96	1,548	488,346	15,225	503,571	0.2	0.0	80.6	2.5
17	1,127	88	1,215	489,473	15,313	504,786	0.2	0.0	80.8	2.5
18	3,912	477	4,389	493,385	15,790	509,175	0.6	0.1	81.4	2.6
19	4,647	619	5,266	498,032	16,409	514,441	0.8	0.1	82.2	2.7
20	1,450	185	1,635	499,482	16,594	516,076	0.2	0.0	82.4	2.7
Post August 20	80,924	9,000	89,924	580,406	25,594	606,000	13.4	1.5	95.8	4.2
Total	580,406	25,594	606,000	580,406	25,594	606,000	95.8	4.2	95.8	4.2

Table 32. Estimated sex composition of sockeye escapement from Nelson River by statistical week, 1991.

Week	Dates	Sample			Percent		Escapement		
		Females	Males	Total	Females	Males	Females	Males	Total
24	(6/07-6/13)	0	0	0	40.0	60.0	2	3	5
25	(6/14-6/20)	0	0	0	40.4	59.6	38	56	94
26	(6/21-6/27)	94	141	235	39.2	60.8	7,796	12,086	19,882
27	(6/28-7/04)	78	162	240	36.2	63.8	9,628	16,967	26,595
28	(7/05-7/11)	117	123	240	45.4	54.6	55,547	66,738	122,285
29	(7/12-7/18)	107	133	240	45.5	54.5	22,934	27,483	50,417
30	(7/19-7/25)	117	125	242	47.7	52.3	13,098	14,385	27,483
31	(7/26-8/01)	0	0	0	48.4	51.6	4,119	4,400	8,519
32	(8/02-8/08)	0	0	0	48.3	51.7	6,343	6,777	13,120
Total		513	684	1,197	44.5	55.5	119,505	148,895	268,400

Table 33. Lengths of sockeye in escapement samples from Nelson River by age and sex, 21 June through 25 July 1991.

	Ages								
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Females									
Mean Length (mm)	538	0	509	494	0	547	491	545	508
SE	-	-	-	5	-	4	2	3	2
Range	538-538	0-0	509-509	375-550	0-0	474-581	401-550	482-598	375-598
Sample Size	1	0	1	87	0	50	220	80	439
Males									
Mean Length (mm)	0	360	0	440	346	575	451	584	475
SE	-	13	-	4	9	3	2	3	3
Range	0-0	293-398	0-0	381-549	309-395	509-629	377-549	507-631	293-631
Sample Size	0	9	0	111	13	60	307	76	576
All Fish									
Mean Length (mm)	538	360	509	464	346	562	467	564	489
SE	-	13	-	4	9	3	2	2	2
Range	538-538	293-398	509-509	375-550	309-395	474-629	377-550	482-631	293-631
Sample Size	1	9	1	198	13	110	527	156	1,015

Table 34. Estimated sex composition of sockeye escapement from Bear River by statistical week, 1991.

Week	Dates	Sample			Escapement				
					Percent				
		Females	Males	Total	Females	Males	Females	Males	Total
23	(5/31-6/06)	23	17	40	56.4	43.6	62	48	110
24	(6/07-6/13)	116	124	240	50.1	49.9	498	497	995
25	(6/14-6/20)	90	149	239	38.1	61.9	7,945	12,918	20,863
26	(6/21-6/27)	83	157	240	35.9	64.1	8,612	15,390	24,002
27	(6/28-7/04)	98	142	240	48.4	51.6	41,577	44,355	85,932
28	(7/05-7/11)	157	83	240	59.8	40.2	96,069	64,574	160,643
29	(7/12-7/18)	134	106	240	57.4	42.6	29,170	21,622	50,792
30	(7/19-7/25)	137	103	240	56.8	43.2	33,321	25,391	58,712
31	(7/26-8/01)	111	89	200	54.8	45.2	19,209	15,825	35,034
32	(8/02-8/08)	96	104	200	49.2	50.8	17,512	18,046	35,558
33	(8/09-8/15)	124	116	240	51.8	48.2	15,228	14,154	29,382
34	(8/16-8/22)	130	105	235	55.3	44.7	57,459	46,518	103,977
Total		1,299	1,295	2,594	53.9	46.1	326,663	279,337	606,000

Table 35. Lengths of sockeye escapement in samples from Bear River by age and sex, 31 May through 22 August 1991.

	Ages												
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Females													
Mean Length (mm)	515	345	0	451	342	524	462	512	516	435	0	568	476
SE	-	5	-	4	3	2	1	5	3	33	-	-	1
Range	515-515	340-349	0-0	363-535	308-380	425-622	350-568	502-517	446-589	402-468	0-0	568-568	308-622
Sample Size	1	2	0	66	29	238	739	3	90	2	0	1	1,171
Males													
Mean Length (mm)	0	336	601	443	335	545	454	550	535	474	464	0	461
SE	-	5	-	3	1	3	1	29	6	-	9	-	2
Range	0-0	308-372	601-601	373-562	295-382	438-625	372-596	446-605	433-628	474-474	455-473	0-0	295-628
Sample Size	0	12	1	81	118	199	683	5	76	1	2	0	1,178
All Fish													
Mean Length (mm)	515	337	601	447	336	534	459	536	524	448	464	568	468
SE	-	4	-	3	1	2	1	19	3	23	9	-	1
Range	515-515	308-372	601-601	363-562	295-382	425-625	350-596	446-605	433-628	402-474	455-473	568-568	295-628
Sample Size	1	14	1	148	152	438	1,454	8	169	3	2	1	2,391

Table 36. Estimated sex composition of sockeye escapement from Ilnik River by statistical week, 1991.

		Sample			Escapement				
					Percent				
Week	Dates	Females	Males	Total	Females	Males	Females	Males	Total
23	(5/31-6/06)	0	0	0	38.2	61.8	1,817	2,941	4,758
24	(6/07-6/13)	21	34	55	40.6	59.4	726	1,060	1,786
25	(6/14-6/20)	116	114	230	47.6	52.4	2,914	3,202	6,116
26	(6/21-6/27)	106	134	240	47.4	52.6	10,614	11,777	22,391
27	(6/28-7/04)	128	111	239	52.3	47.7	17,251	15,746	32,997
28	(7/05-7/11)	124	114	238	52.4	47.6	30,251	27,451	57,702
29	(7/12-7/18)	0	0	0	52.1	47.9	4,819	4,431	9,250
Total		495	507	1,002	50.7	49.3	68,391	66,609	135,000

Table 37. Lengths of sockeye in escapement samples from Ilnik River by age and sex, 7 June through 11 July 1991.

	Ages									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Females										
Mean Length (mm)	0	357	534	454	338	530	0	547	550	529
SE	-	-	4	21	-	1	-	-	8	1
Range	0-0	357-357	497-570	418-490	338-338	432-597	0-0	547-547	524-582	338-597
Sample Size	0	1	21	3	1	372	0	1	8	407
Males										
Mean Length (mm)	417	0	565	464	0	561	412	624	581	560
SE	-	-	5	42	-	1	-	-	6	1
Range	417-417	0-0	506-593	390-570	0-0	459-661	412-412	624-624	530-615	390-661
Sample Size	1	0	23	4	0	373	1	1	17	420
All Fish										
Mean Length (mm)	417	357	550	463	338	545	412	586	570	545
SE	-	-	4	21	-	1	-	39	5	1
Range	417-417	357-357	497-593	390-570	338-338	432-661	412-412	547-624	524-615	338-661
Sample Size	1	1	44	8	1	755	1	2	26	839

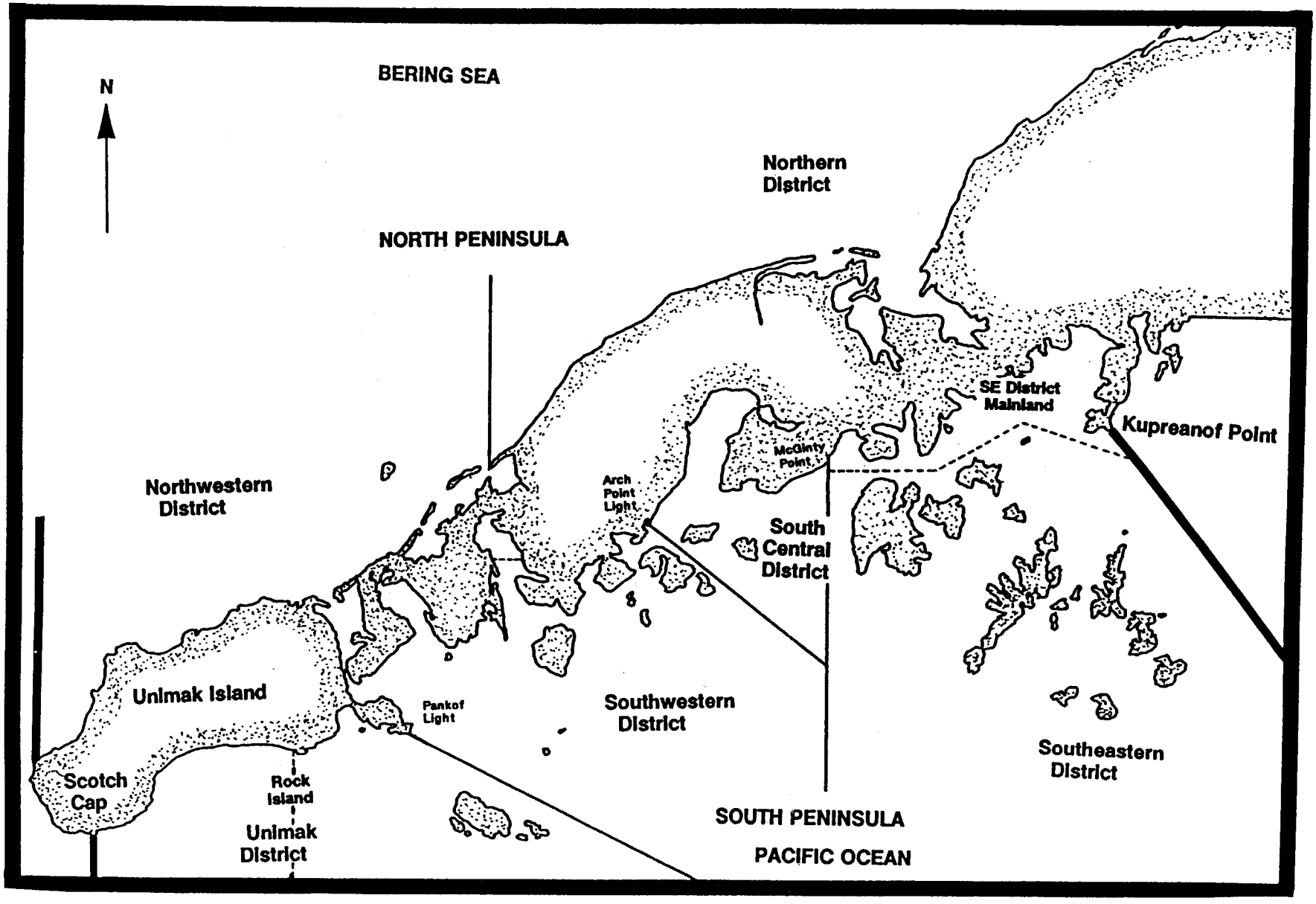

Figure 1. Alaska Peninsula Management Area with districts on the South and North Peninsula depicted.

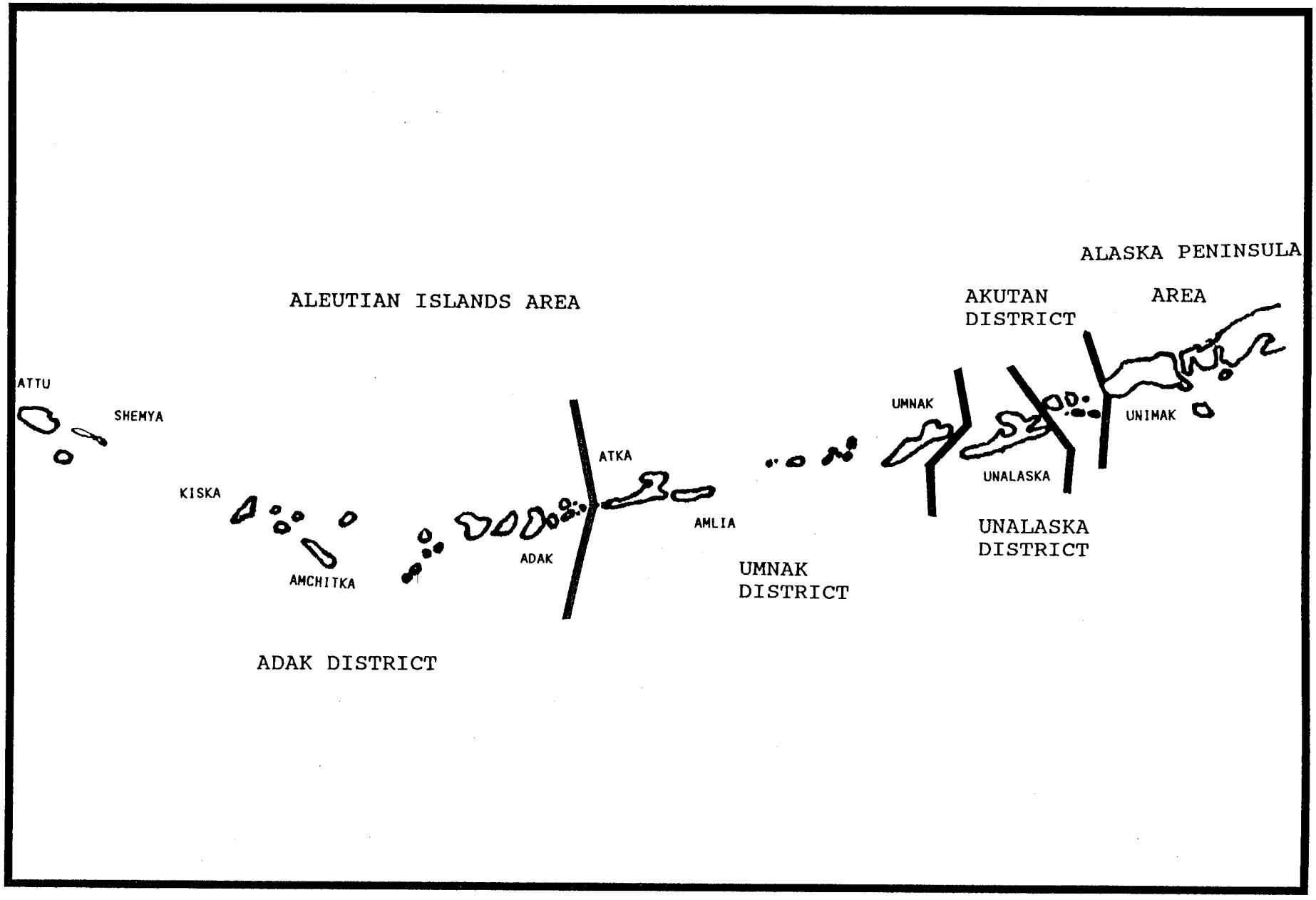

Figure 2. Aleutian Islands Management Area with districts shown.

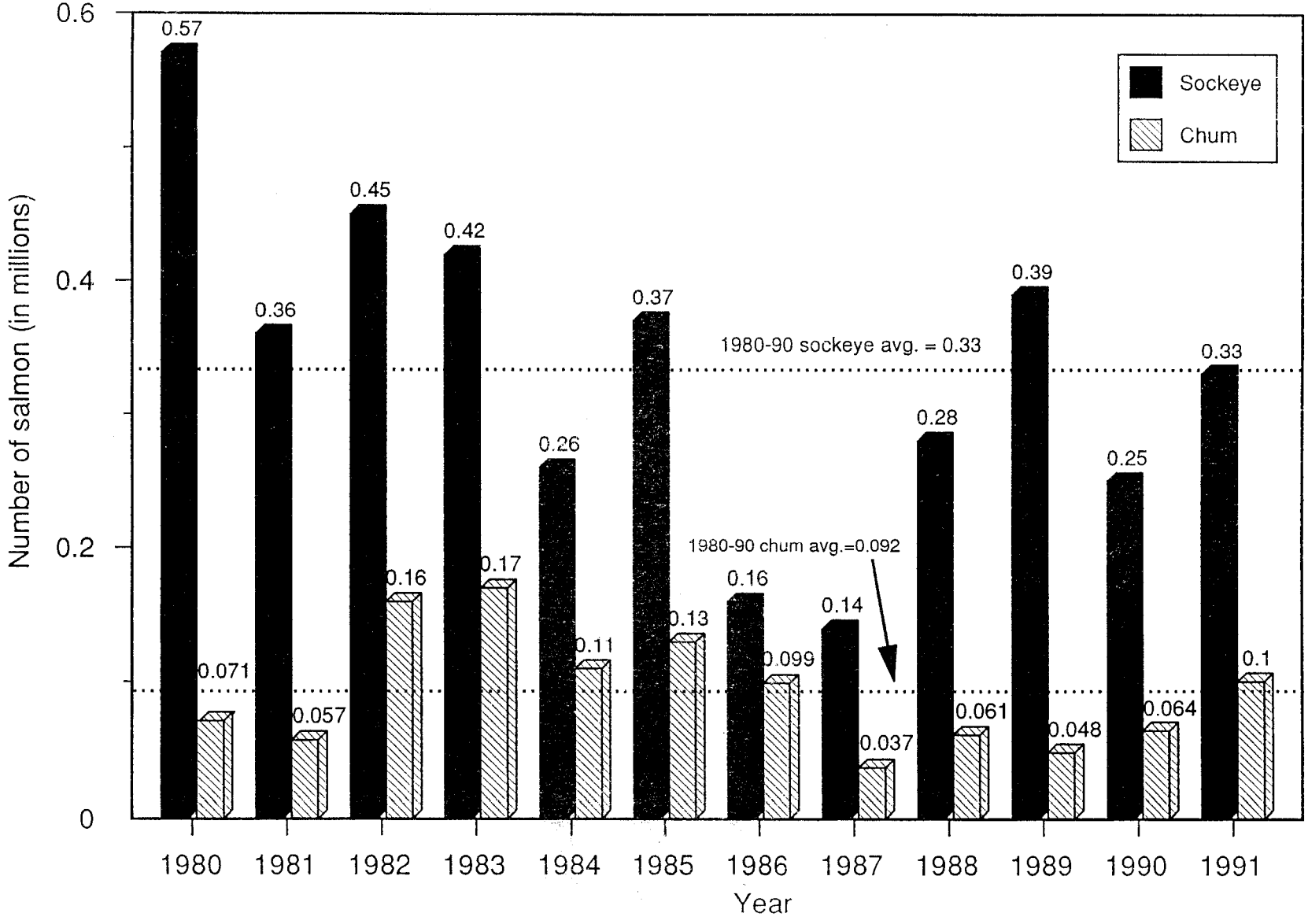

Figure 3. Annual sockeye salmon harvest in the June Shumagin Islands Section fishery, 1980-91.

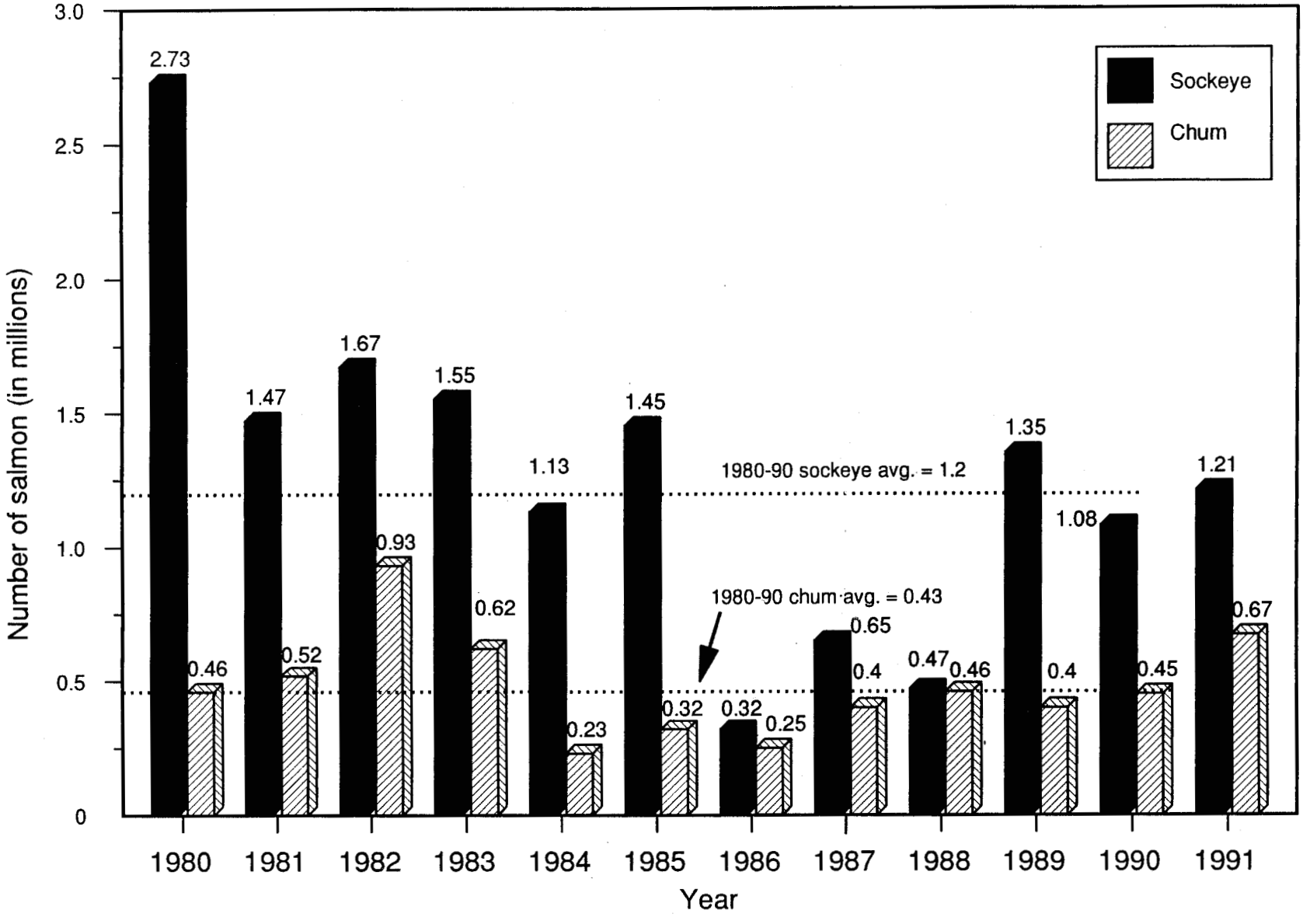

Figure 4. Annual sockeye salmon harvest in the June South Unimak fishery, 1980-91.

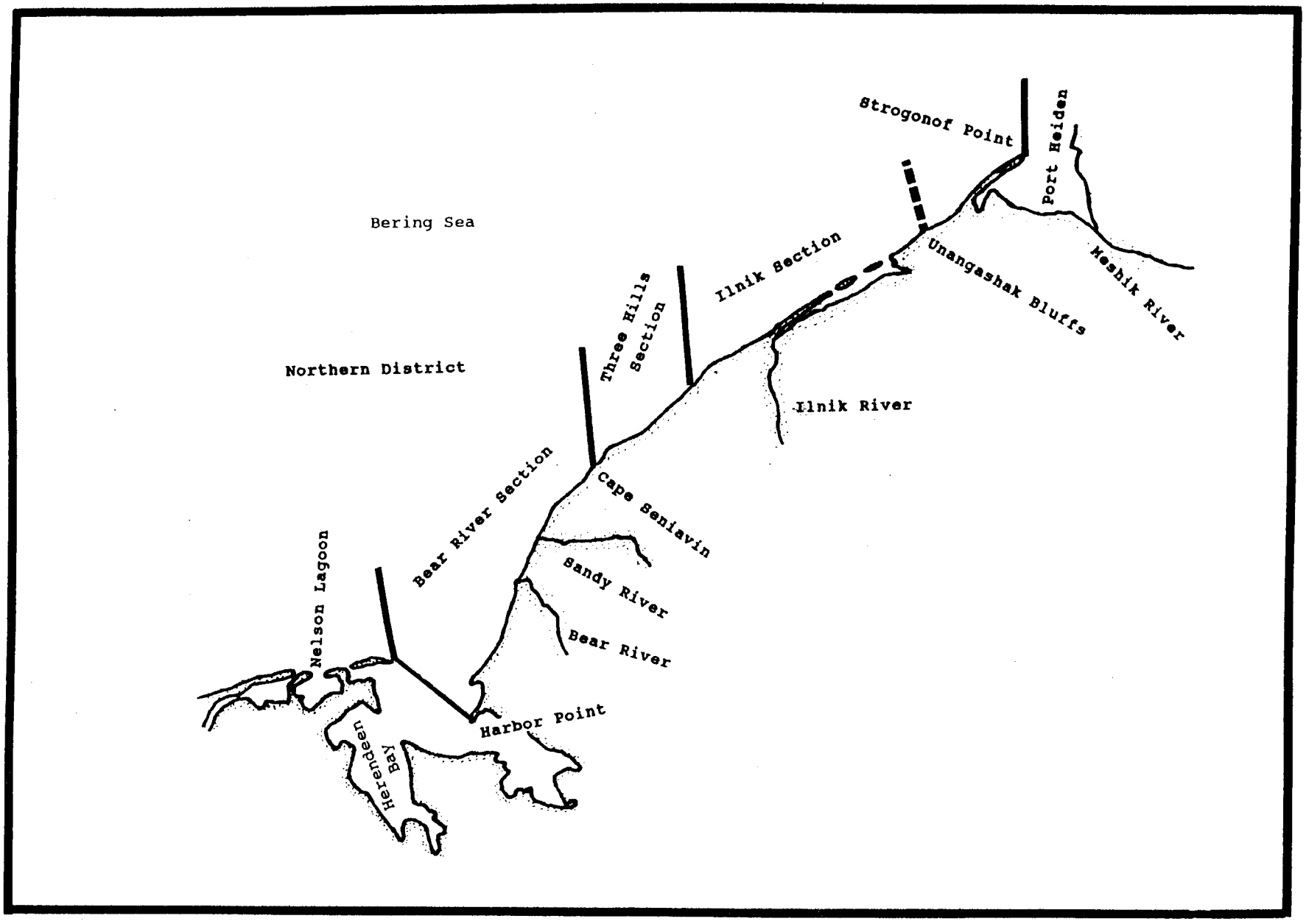

Figure 5. Harbor Point to Strogonof Point reach, with sections and major water bodies depicted.

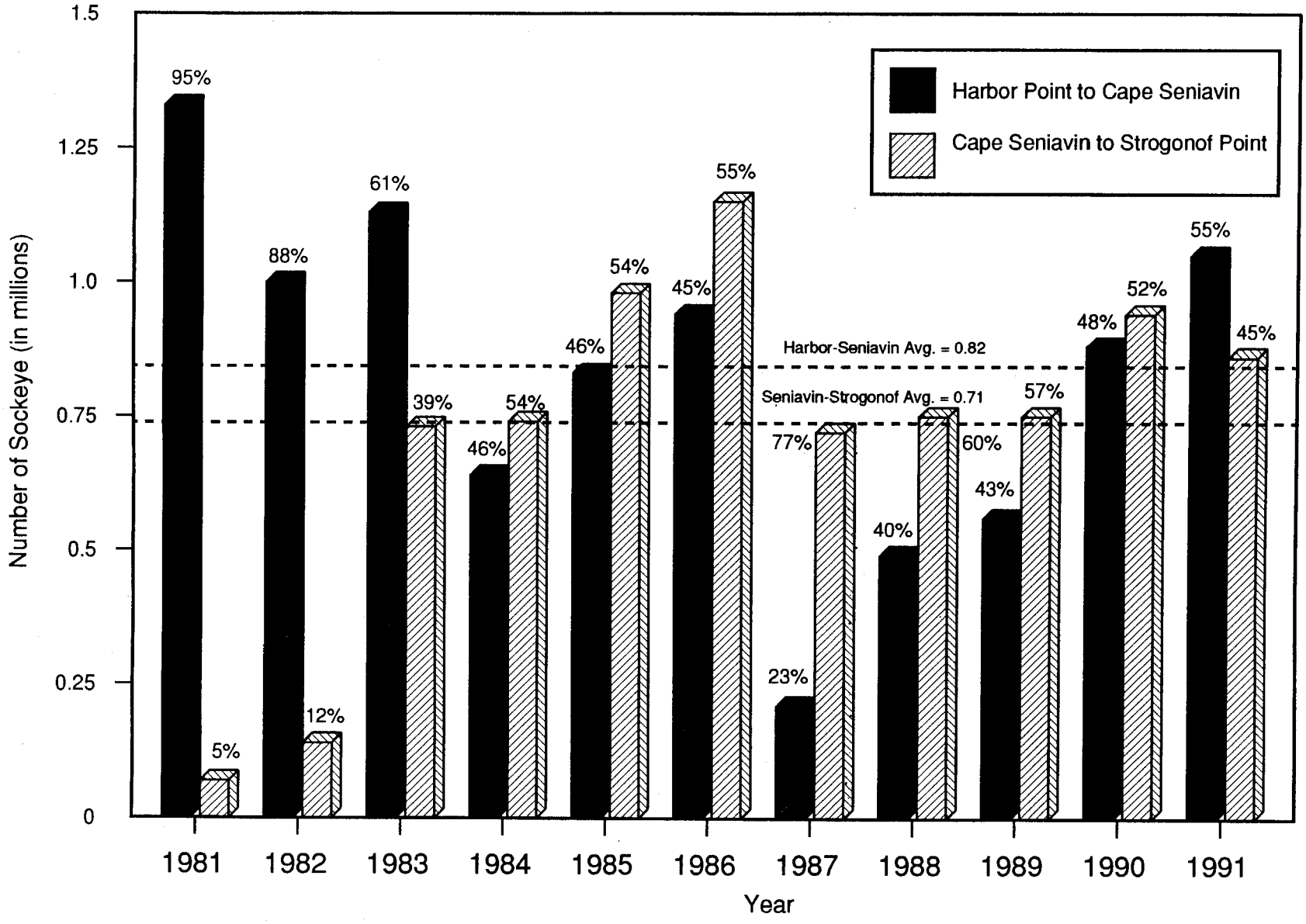

Figure 6. Annual sockeye salmon harvest in the Harbor Point to Cape Seniavin and Cape Seniavin to Strogonof Point areas, 1981-91.